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MONTANA AIR MONITORING
NETWORK REVIEW
2005

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2005 MONTANA AIR MONITORING NETWORK REVIEW

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA) requires the Montana Department of Environmental Quality (DEQ or Department) to conduct an annual review of the State's ambient air monitoring network.

EPA's requirements for an annual network review are in 40 CFR 58.20(d). The requirements maintain that the State must conduct an annual review to determine if the air quality surveillance system or ambient monitoring network meets the monitoring objectives in 40 CFR Part 58, Appendix D. Also, the annual review is to identify needed modifications of the network, such as the termination or relocation of unnecessary stations or the establishment of new stations, which are necessary.

The Department is also required by 40 CFR 58.25 to develop and implement an annual schedule to modify the network to eliminate any unnecessary stations or to correct any inadequacies indicated by the results of the annual review. The Department must consult with the EPA Regional Administrator during the development of the schedule to modify the monitoring program. The final schedule and modifications are subject to the approval by the Regional Administrator. This document and subsequent revisions are intended to satisfy the annual requirements.

1.1 NETWORK REVIEW PROCESS

In order to conduct this review, the monitoring objective and the spatial scale of representativeness of each station, existing or proposed, are first examined to determine whether they represent the air quality condition of the area. Background information, such as maps, climatological summaries, emission inventories, traffic counts, and modeling results are gathered and reviewed. The opinions of the Department, the seven approved county air pollution agencies, and the EPA are solicited.

In the 1979 Network Review, the Department designated each monitoring site in the State as either a National Air Monitoring Station (NAMS), a State and Local Air Monitoring Station (SLAMS) or a Special Purpose Monitoring station (SPM). The NAMS/SLAMS network is designed to meet six basic monitoring objectives. The monitoring objectives are:

1. To determine highest concentrations expected to occur in the area covered by the network.

2. To determine representative concentrations in areas of high population density.

3. To determine the impact on ambient pollution levels of significant sources or source categories.

4. To determine general background concentration levels.

5. To determine the extent of Regional pollutant transport among populated areas; and in support of secondary standards.

6. To determine the welfare-related impacts in more rural and remote areas (such as visibility impairment and effects on vegetation).

The link between the monitoring objectives and the physical location of a particular monitoring site is the concept of spatial scales of representativeness. The spatial scale is determined by the physical dimensions of the air parcel nearest a monitoring station throughout which the actual pollutant concentrations are reasonably similar. The goal in siting stations is to match the spatial scale represented by the sample of monitored air with a spatial scale most appropriate for the monitoring objective. Spatial scales of representativeness, as specified by EPA, are described below:

Microscale -	defines the concentrations in air volumes associated with area dimensions ranging from several meters up to about 100 meters.
Middle scale -	defines the concentration typical of areas up to several city blocks in size with dimensions ranging from about 100 meters to 0.5 kilometers.
Neighborhood scale -	defines concentrations within some extended area of the city that has relatively uniform land use with dimensions in the 0.5 to 4.0-kilometer range.
Urban scale -	defines the overall, citywide conditions with dimensions on the order of 4 to 50 kilometers. This scale would usually require more than one site for definition.
Regional scale -	defines a rural area of reasonable homogeneous geography and extends from tens to hundreds of kilometers.
National and Global scales -	these measurement scales represent concentrations characterizing the nation and the globe as a whole

To site a monitoring station properly, both the monitoring objective and the spatial scale of representativeness must be determined. Appropriate siting scales for the various monitoring objectives are listed below:

Monitoring Objective	Siting Scales
Highest Concentration -	Micro, middle, neighborhood (sometimes urban)
Population -	Neighborhood, urban
Source Impact -	Micro, middle, neighborhood
General/Background -	Neighborhood, regional

1.2 CRITERA POLLUTANTS OF CONCERN

Montana is a large state (147,138 square miles) with a small population (902,195 - 2000 U.S. Census). Montana's air quality problems are generally associated with urban areas or in areas susceptible to temperature inversions. Ambient pollutants of concern in Montana include particulate, sulfur dioxide, lead, carbon monoxide, nitrogen dioxide, ozone, and air toxics. These pollutants of concern, physical characteristics and sources, industrial emissions, historical trends, nonattainment areas, and regulatory measures are discussed in order of priority in the following sections.

1.2.1 PARTICULATE

Particulate matter is the term given to the tiny particles of solid or semi-solid material suspended in the atmosphere. Particles ranging in size from less than 0.1 micrometer (µm or microns) to 50 microns are called Total Suspended Particulate (TSP). Particles larger than 50 microns tend to settle out of the air quickly and are not considered having a health "effect". Particulate matter 10 microns in aerodynamic diameter and smaller is considered inhalable and thus has the greatest health impact. This type of particulate matter is called PM_{10}. Particles 2.5 microns in diameter and smaller are carried deep into the lungs where they have serious health effects, and are termed $PM_{2.5}$.

Combustion processes produce ultrafine particulate with particles having diameters smaller than 0.1 micron. This material quickly clumps or coagulates to form particles in the 0.1 to 2.5-micron diameter size range. These combustion products are the bulk of $PM_{2.5}$. Most natural particles like pollen and spores are larger than 2.5, but smaller than 10 microns in diameter. These particles, with $PM_{2.5}$ and some fine dust produced in grinding operations are captured as PM_{10}. Particulate larger than 10 microns is primarily of geological origin (dust). The finer the particulate, the slower it settles. In still air, PM_{10} particles require hours to settle. $PM_{2.5}$ material probably never settles and is only removed from the air by rain. As a result, $PM_{2.5}$ is the principal cause of visibility impairment, or "haze".

Particulate matter is Montana's major air pollution problem and receives a high priority from Department staff. The major sources of particulate are reentrained road dust from passing vehicles on paved and unpaved roads, residential wood combustion (RWC), and industrial and agricultural activity. In the past, the State was concerned with TSP and sought ways to control its sources. As a result of the 1977 amendments to the Federal Clean Air Act, several areas of the State were designated nonattainment of either the primary or secondary standard for TSP. The Department developed emission control plans as part of the State Implementation Plan (SIP) to bring the areas into compliance and implemented control strategies to keep them in compliance. On July 31, 1987, the EPA promulgated new ambient air quality standards for particulate matter. The new standards changed the focus from larger particles (TSP) to smaller inhalable particles (PM_{10}).

In January 1999, DEQ began a particulate monitoring program for fine particulate or $PM_{2.5}$. Twelve sites are operating in populous areas with a history of high particulate levels and seven Interagency Monitoring of Protected Visual Environments (IMPROVE) sites are providing background and transport information. The IMPROVE network was created in 1988 to monitor visibility in national parks and wilderness areas and it was considerably expanded in 1999. Data from these IMPROVE sites will be used to determine which pollutants must be reduced to deal with visibility impairment problems.

$PM_{2.5}$ speciation monitoring began at the Missoula - Boyd Park site in February 2001. Speciation is chemical analysis of the particulate fraction and provides important information about the material's toxicity and origin. This information is essential to any future control efforts. The Missoula site was selected for this very expensive and limited monitoring effort because of its similarity to most of Montana's particulate problem areas.

Since the promulgation of the PM_{10} standards several areas in Montana have been designated nonattainment including Butte, Columbia Falls, Kalispell, Libby, Missoula, Thompson Falls, and Whitefish.

The nonattainment provisions of the Clean Air Act mandate definite schedules to show attainment, and provide for sanctions and Federal oversight if the scheduled dates are not met.

At this time, all of the PM_{10} nonattainment areas have federally approved control plans, or "SIPs". The PM_{10} nonattainment areas continue to require a significant commitment of resources for the SIP development process.

On January 5, 2005 EPA designate the Libby area of Lincoln County nonattainment for the annual average $PM_{2.5}$ standard. (70 FR 944).

The following sections provide further information on the designated PM_{10} and $PM_{2.5}$ nonattainment areas and associated regulatory measures implemented.

1.2.1.1 FLATHEAD COUNTY HISTORY

In Columbia Falls an exceedance of the 24-hour PM_{10} standard occurred in October 1987, and the area was designated moderate nonattainment for PM_{10} in 1990. From September 1989 until April 1990, the Department conducted a source apportionment study in Columbia Falls. The results from this study indicated that fugitive dust was the major contributor to the PM_{10} problem. A PM_{10} control plan was developed and submitted to the EPA in November 1991. The plan consisted of controls on fugitive dust emissions from roads, parking lots, construction, and demolition, as well as the Plum Creek facility. EPA approved the Columbia Falls SIP April 14, 1994.
Dust generated by a bark processing facility in the industrial park on the Northeast side of Columbia Falls generated considerable concern in 1998-2000. Monitoring for PM_{10} never identified any exceedances of the NAAQS.

Anticipating promulgation of new PM_{10} National Ambient Air Quality Standard (NAAQS), the Department initiated a source apportionment study in Kalispell in 1986 and 1987. The source apportionment study identified reentrained road dust as the predominant source followed by residential wood combustion. Kalispell was designated as a PM_{10} moderate nonattainment area in November 1990. A PM_{10} control plan for Kalispell was developed and submitted to EPA on June 29, 1990. The final plan (November 1991) consisted of controls on fugitive dust emissions from roads, parking lots, construction, and demolition. The State received Kalispell PM_{10} control plan approval March 19, 1996.

Whitefish was officially designated as a nonattainment area in October 1993.
A source apportionment study conducted in Whitefish from January 1993 through March 1994 showed reentrained road dust as the largest source of particulate. EPA approved theWhitefish PM_{10} control plan on November 1, 2001.

1.2.1.2 LINCOLN COUNTY HISTORY

From October 1987 until December 1988, the Department conducted a chemical mass balance (CMB) source apportionment study in Libby. The results of the study showed that reentrained road dust and residential wood combustion were the principal particulate sources. Libby was designated moderate nonattainment for PM_{10} in November 1990. A PM_{10} control plan for Libby was submitted to EPA on November 25, 1991, and upon review, the EPA requested that the Department commit to several revisions for the plan to be considered for approval. These revisions were submitted to the EPA on May 24, 1993, and the PM_{10} control plan was approved on August 30, 1994.

$PM_{2.5}$ monitoring, which began in 1999, indicated that Libby was going to have problems meeting the annual average NAAQS for fine particulate. In an effort to understand the nature of the problem, speciation monitoring began in 2002. Beginning in November 2003 and ending in March 2004, a special winter study was conducted to evaluate the representativeness of the Courthouse Annex site and the geographical extent of the high $PM_{2.5}$ concentration. Results from the monitoring study indicated that high concentrations of PM-2.5 were associated with the city center and south along the Farm to Market road.

A CMB study was conducted by the University of Montana to identify the sources of high, wintertime $PM_{2.5}$ in the Libby area. Results of the CMB study found that 82 percent of PM-2.5 emissions were from woodstoves. Other species were from automobiles (7%), ammonium nitrate (5%), diesel exhaust (4%), and sulfate (2%). A woodstove change out program is the primary control strategy that will demonstrate reductions in woodstove emissions and attainment of the PM-2.5 standard.

1.2.1.3 MISSOULA COUNTY HISTORY

In 1977, after the passage of the Clean Air Act Amendments, Missoula was designated nonattainment for the primary TSP standards based on data from this site. As part of the SIP to control TSP, the city of Missoula incorporated a systematic program of street sweeping and flushing to show attainment by 1982.

Although not part of the plan, Missoula implemented several control measures directed at emissions from residential wood combustion. The control measures brought the area into compliance with the annual standard, but occasionally the 24-hour standard was exceeded.

During the fourth calendar quarter of 1986 and the first quarter of 1987, the Missoula City-County Health Department (MCCHD) conducted a PM_{10} source apportionment study. The study showed that the major sources contributing to the PM_{10} problem were reentrained road dust and residential wood combustion. Missoula was officially designated moderate nonattainment for PM_{10} in November 1990. On January 18, 1994, EPA approved Missoula's PM_{10} control plan. Redesignation is being planned for completion by the end of 2006.

Early $PM_{2.5}$ results for Missoula found the annual average value uncomfortably close to the NAAQS. A two-year study to investigate the distribution of volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs), in the $PM_{2.5}$ mass was conducted by the University of Montana in the Missoula Valley during 2000/2001. The final report evaluated the relationships between airborne pollutants (both gaseous and particulate) in the Missoula airshed. A chemical mass balance source apportionment model indicated that 40-70% of the $PM_{2.5}$ particulate (dependent on season) was from wood combustion.

1.2.1.4 SANDERS COUNTY HISTORY

In 1988, a 24-hour PM_{10} exceedance occurred in Thompson Falls requiring the State to develop a PM_{10} control plan with strategies to bring the area into compliance. The Department conducted a source apportionment study in Thompson Falls from October 1990 until April 1991. This study determined that reentrained road dust was the major contributing source of PM_{10} emissions. Minor sources were shown to be wood combustion and the WI Forest Products boilers. A control plan was developed and submitted to the Board of Environmental Review in June 1997. The control strategy involves more frequent street sweeping. EPA approved the Thompson Falls PM_{10} control plan on November 1, 2001.

1.2.1.5 SILVER BOW COUNTY HISTORY

During the winter of 1987-88, the Department conducted a source apportionment study in Butte. The study identified the source of particulate through a combination of optical microscopy, chemical analysis of collected particulate, and computer modeling.

In 1990, Butte was designated as a PM_{10} moderate nonattainment area. The Department developed the Butte PM_{10} control plan and submitted it to the EPA in November 1991. The control strategies included controls on residential wood combustion, paved and unpaved roads, and new operating permits for area mining activities.

As part of the plan submitted in 1991, an emission inventory for Butte for PM_{10} was conducted that identified an additional "hot spot" for PM_{10} emissions in a residential area near the Harrison Avenue-Interstate 90 intersection. EPA approved the Butte PM_{10} control plan on March 11,1994.

1.2.2 SULFUR DIOXIDE

Sulfur dioxide (SO_2) is a colorless gas with a pungent odor. It is detectable by the human nose at concentrations of about 0.5 to 0.8 parts per million (ppm). It is highly soluble in water where it forms sulfurous acid (H_2SO_3). In the atmosphere, sulfurous acid is easily converted to sulfuric acid (H_2SO_4), the major acidic component of “acid rain.” SO_2 is considered a major worldwide pollution problem. It is emitted mainly from stationary sources that burn coal or oil. Other sources of SO_2 include refineries and smelters. Significant amounts of SO_2 are also emitted from natural sources such as volcanoes, which rarely contribute to urban SO_2 problems.

Sulfur dioxide is a pollutant of concern in the State and there are four areas in Montana where SO_2 is an issue. These are Great Falls in Cascade County, East Helena in Lewis & Clark County, Colstrip in Rosebud County; and the Billings/Laurel area in Yellowstone County, all are discussed in detail in the following sections. In all cases, the source of SO_2 is industrial point sources.

1.2.2.1 CASCADE COUNTY HISTORY

In Great Falls the primary source of SO_2 is the Montana Refining Company petroleum refinery. As the result of dispersion modeling, performed in support of the Montana Refining Company operating permit application, potential exceedances of the SO_2 NAAQS were identified on high ground to the east of the Montana Refining facility. This forced substantial emission reductions before the permit could be issued. A new permit application in 1999, spurred renewed modeling and identified a "hot spot" closer and lower to the facility. The company's operating permit requires SO_2 monitoring in this maximum impact area.

1.2.2.2 LEWIS & CLARK AND JEFFERSON COUNTIES HISTORY

There has been a sulfur dioxide issue in Lewis & Clark County (and Jefferson County) for a number of years. The ASARCO Inc. (ASARCO) primary lead smelter is the only major SO_2 point source in Lewis & Clark County and is located next to the city of East Helena in the Helena Valley. In March 1978, East Helena was designated nonattainment for SO_2.

Monitoring by ASARCO in the early 1970s revealed exceedances of the SO_2 standard in the East Helena area. In 1975, the Montana SIP was revised to include SO_2 controls that provided for the attainment and maintenance of the SO_2 NAAQS. The strategy limited the emission rate for the sinter plant and called for a 75 percent reduction of SO_2 on an annual basis. As a result of the revised SIP, ASARCO installed a double contact acid plant with several modified stacks to reduce the SO_2 emissions in 1977.

Continued monitoring by ASARCO showed attainment of the SO_2 NAAQS at all sites except the Kennedy Park site (north of East Helena). Night drainage winds from the south along the Prickly Pear Creek often cause emissions to drift to the north. This was the probable cause of high concentrations at the Kennedy Park monitor.

In 1978 and again in 1980, field tracer studies determined the good engineering practice (GEP) stack height for a proposed taller stack. These proposed changes were submitted as part of the East Helena SO_2 control plan. In 1982, a new blast furnace baghouse stack was built. The taller stack allowed emissions to be dispersed at a higher elevation and eliminated high concentrations near ground level.

Data from analyzers in the immediate vicinity of the smelter have shown exceedances, but no violations of the NAAQS or Montana Ambient Air Quality Standards (MAAQS). There were some "violations" of the three-hour SO_2 NAAQS in 1987 at the Highway 518 site, located about four miles from the smelter near a cement manufacturing facility. A data review did not determine any cause for the high readings and it was difficult to determine if the readings were valid. No other violations have occurred since that time.

In April 1991, EPA notified the Department that the East Helena SO_2 control plan had insufficiencies and a revised plan needed to be submitted by May 1992. An inadequate GEP stack height analysis and requirements in the Federal Clean Air Act Amendments of 1990 drove this request.

The Department worked with ASARCO to develop standard operating procedure (SOP) documents and a quality assurance (QA) plan for their SO_2 monitoring network. EPA approved the QA plan on February 23, 1993.

EPA approved the East Helena SO_2 control plan revision for the annual and 24-hour NAAQS on March 28, 1995 DEQ has received comments from ASARCO and EPA on the East Helena 3-hour SO_2 control plan. Progress has slowed on the development of this control plan since ASARCO closed down operations in April 2001. The closure brought SO_2 emissions in Lewis and Clark county down from 11,012 tons in 1999 to 14 tons in 2002. However, the Department will continue to pursue a revised control plan for approval by the Board of Environmental Review.

1.2.2.3 ROSEBUD COUNTY HISTORY

In Colstrip, the industrial sources for SO_2 are four coal-fired power plants. Montana Power Company's Colstrip (Colstrip) Units #1 and #2 were permitted in 1973 by the State. Unit #1 was commissioned in October 1975 and Unit #2 in August 1976. The units utilize wet scrubbers for SO_2 control with an efficiency of 70 percent.

In 1978, EPA issued a permit for Colstrip Units #3 and #4. EPA was the issuing agency because, at that time, the State had not been delegated as the prevention of significant deterioration (PSD) permitting authority. The issue of impact on the Northern Cheyenne PSD Class I area resulted in higher stacks and greater control efficiencies for Units #3 and #4. These units use wet scrubbers with lime injection resulting in 90 percent SO_2 control efficiency.

The company maintained an ambient network around the facility through 2001 and continues to support a tribal air monitoring program on the Northern Cheyenne reservation. SO2 monitoring at the facility was terminated after many years of measuring very low concentrations.

1.2.2.4 YELLOWSTONE COUNTY HISTORY

There are seven major sources in the Billings/Laurel area which emit SO_2. In Billings, these include Exxon Company USA (oil refinery), Conoco Inc Refinery (oil refinery), Montana Power Corrette Steam Plant (coal-fired electric power generating facility), Western Sugar Company (sugar beet factory), Yellowstone Energy Limited Partnership (coke-fired cogeneration power plant), and Montana Sulphur & Chemical Company (sulfur recovery facility).

In Laurel, the major source is the Cenex Refinery (oil refinery). The combined source mix contributes to high ambient readings. In March 1978, the Laurel area was designated nonattainment for SO_2.

In December 1977, the Billings/Laurel industries and the State signed a stipulation requiring the industries to employ various control options. This stipulation, incorporated into the SIP, provided the framework to bring the area into compliance with ambient standards. Subsequent monitoring networks for SO_2 have shown the area to be in compliance with the NAAQS, but exceeding the MAAQS.

The 1977 stipulation also commissioned the Department (with industrial funding) to conduct an ambient air quality study to more fully describe the magnitude and geographical extent of the SO_2 concentrations. Another major goal of the study was to identify the relative source contributions from each industrial source.

In 1981-82, the Department (through a cooperative effort with the industries) designed and installed a SO_2 monitoring network. The network consisted of eight SO_2 monitoring sites with meteorological monitoring including upper air measurements employing acoustic radar and pilot balloons. Six of the SO_2 sites were in Billings and two were in Laurel. Using this data, the Department attempted to validate a mathematical model that could predict concentrations from the various SO_2 sources. The model failed for the following reasons: (1) a lack of good emissions data; (2) high concentrations caused by inversion breakup and direct plume impact, which the model could not handle; (3) over-prediction of plume rise by the model; and (4) very small changes in wind direction could cause large differences in predicted versus actual concentrations at receptors located close to the sources. A novel approach was developed using directional analysis and mass emissions to characterize source contributions to the annual average at the worst-case receptor (highest estimated ground-level SO_2 concentration). This was useful, but could not be applied as a predictive tool for short-term averages or at other receptors in the valley.

During 1984 to 1986, the Department explored rule-making options to bring the area into compliance with the SO_2 MAAQS. With no easy administrative solutions in sight, the Montana Legislature passed HB 534 in the 1987 session. This bill exempted the existing Billings/Laurel industries from meeting the MAAQS; they had only to meet the NAAQS (which was being met in Yellowstone County). Acknowledging the State's diminishing role in SO_2 monitoring in Billings, the legislature passed HB 878, and provided state funding for continued monitoring.

Following the 1987 Legislature session, a committee of the Billings/Laurel industries, the local chamber of commerce, and air pollution professionals united to monitor and report on the area's air quality. The Billings/Laurel Air Quality Technical Committee (BLAQTC) was formed in the spring of 1987. The Department is a non-paying member of BLAQTC and works with the group on site selection, quality assurance, and ambient monitoring.

Due to interest by the EPA and environmental groups, the State and Billings/Laurel industries conducted peak five-minute monitoring for SO_2 during the winter of 1990-91. An EPA contractor reviewed the peak five-minute data and its relationship to the hourly averages (peak-to-mean ratios). The results of this review were inconclusive. No additional peak five-minute monitoring for SO_2 is planned by the Billings/Laurel industries. However, the State continues to collect peak five-minute SO_2 data at its sites.

In 1990, E. H. Pechan and Associates (Pechan) developed a SO_2 emission inventory for the Billings/Laurel area. The final report, submitted to EPA in 1991, indicated a large difference between actual and potential SO_2 emissions for most sources.

The City of Billings contracted with GeoResearch Inc. in 1990 to conduct a SO_2 dispersion modeling study for the Billings area utilizing recently gathered meteorological data and the Pechan SO_2 emission inventory. The results of the dispersion modeling study predicted violations of the sulfur dioxide NAAQS at both the potential to emit and maximum actual emission rates.

In 1991, Billings Generation Inc. (BGI) owned by Yellowstone Energy Limited Partnership (YELP) submitted a permit application for construction and operation of a coke-fired cogeneration power facility located adjacent to the Exxon Company USA (Exxon) Refinery. Dispersion modeling performed in support of the permit application predicted violations of the SO_2 NAAQS in the Billings' area as well as PSD increments. The permit for BGI was granted in March 1992, and required a reduction in sulfur dioxide at the Exxon Refinery.

In a March 4, 1993, letter to the Governor of Montana, EPA stated that it determined the SO_2 control plan for the Billings/Laurel area to be substantially inadequate and requiring revision. EPA based the insufficiencies on modeled SO_2 NAAQS violations from the GeoResearch Study and BGI permit application.

In addition, EPA determined that the existing control plan did not provide enforceable methods to ensure compliance with the NAAQS.

DEQ, in cooperation with the Billings area SO_2 emitting industries, prepared a major revision to the Billings sulfur dioxide control plan. On May 19, 1995, the Board of Health and Environmental Sciences, now the Board of Environmental Review, adopted SO_2 control plans for six of the seven Billings/Laurel industries.

Following this adoption, a control plan for Montana Sulphur and Chemical Company and a revised plan for Exxon Company U.S.A., Billings Refinery, were developed through a contested case before the Board. As a result of the new Montana Sulphur and Exxon control plans, similar changes were necessary for the other five industries. The Board approved these modifications on August 9, 1996, and the Board made additional modifications to the Exxon control plan on February 7, 1997. The control plans established emission limits on all of the SO_2 emitting sources and required continuous emission monitors on most stacks for compliance determinations.

Sulfur dioxide emissions in Yellowstone County have leveled out at about 15,100 tons in the last couple of years.

1.2.3 LEAD

Lead (Pb) is a naturally occurring, bluish-gray metal that is found in small quantities in the earth's crust. It is emitted into the atmosphere by automotive emissions (that was phased-out), by smelters (other than iron smelters), and by manufacture of lead storage batteries. In Montana, a 120-year smelting legacy continues today.

1.2.3.1 LEWIS & CLARK COUNTY HISTORY

Lead is a pollutant of concern in East Helena where the predominant source is the ASARCO primary lead smelter. EPA promulgated NAAQS for lead on October 5, 1978. Monitoring data indicated that East Helena violated that standard. The Department conducted extensive studies in the early 1980s to determine source apportionment. and the results indicated that reentrained road dust, soil, fugitive ore concentrates, zinc oxide material, and blast furnace upsets were the primary lead contributors. EPA approved the East Helena Lead SIP, which contained control strategies expected to bring the area into compliance, on July 9, 1984.

As of December 31, 1986, all the control strategies in the plan were implemented; however, ambient air monitoring data for 1987 and 1988 indicated although lead levels decreased, they remained above the lead standard. As a result of the monitoring data, EPA notified Montana that the East Helena lead SIP was inadequate in October 1988.

From 1990 through the first half of 1995, the State, ASARCO, and American Chemet Corp. conducted ambient monitoring, emission inventory estimations, source apportionment studies, meteorological data collection, and dispersion modeling in support of a revised SIP.

On August 2, 1993, EPA made a finding that Montana had failed to submit a lead SIP by July 6, 1993, for the East Helena lead nonattainment area. Therefore, sanctions were to be imposed 18 months after the finding (February 2, 1995), unless the State submitted a revised SIP and EPA determined that the revised SIP was complete within that time frame. On February 2, 1995, EPA imposed 2:1 emission offset sanctions in the East Helena lead nonattainment area. EPA received the revised SIP in August 1995 and an additional revision in July 1996. EPA is in the process of reviewing state responses to EPA comments.

1.2.4 CARBON MONOXIDE

Carbon monoxide (CO) is a colorless, odorless, and tasteless gas produced primarily during the incomplete combustion of organic fuels used for transportation and heating. Generally, it is the largest single fraction of gaseous pollutants found in urban atmospheres. Automobile exhaust is the principal source of CO emissions (60-80%) in Montana's major urban areas, with industrial emissions, and agricultural and forestry burning, as well as residential wood combustion in Western Montana, contributing sources.

Carbon monoxide is a pollutant of concern in the larger communities in Montana and in West Yellowstone due to snowmobile activity in the winter. Currently, Missoula is categorized as "moderate" nonattainment for carbon monoxide. On February 9, 2001, the Department submitted a request to EPA to redesignate the Billings and Great Falls "Not Classified" CO nonattainment areas to attainment. On February 21, 2002, EPA published a direct-final rule approving the Billings Limited Maintenance Plan. Great Falls CO redesignation approval is expected within the year. Therefore, Great Falls remains classified as nonattainment, "not classified" for carbon monoxide. Kalispell violated the 8-hour CO NAAQS in January 1996 and is under a "SIP Call." Exceedances, control plans, emission inventories, and related regulatory measures for Great Falls, Kalispell, Missoula, and Billings, in their respective counties, are discussed in detail below.

1.2.4.1 CASCADE COUNTY HISTORY

In 1980, EPA listed Great Falls as nonattainment for CO following sixteen violations of the CO standard between July 1977 and February 1979. The NAAQS for CO is 9.0 ppm for an 8-hour average concentration, not to be exceeded more than once per year. Control plans were developed to bring Great Falls back into compliance following the nonattainment designation. However, the first control plan had to be withdrawn due to the failure of Montana Refining, a major CO source at that time, to modify their catalytic cracking unit.

A second control plan was submitted to EPA in 1987, but approval was never finalized, and Great Falls experienced another violation that same year. Following the 1990 Clean Air Act Amendments (CAAA), Great Falls was reevaluated based on the lack of exceedances in 1988 and 1989 CO monitoring data. EPA listed Great Falls as a "not classified" nonattainment area for CO in 1991. That EPA action required a new emission inventory and development of a maintenance plan for redesignation to attainment.

The Department began a redesignation effort based on a "Limited Maintenance Plan" strategy (a less restrictive plan for redesignation granted to areas with low ambient CO values or "design" values, like Great Falls) and a 1996 CO baseline emission inventory. Although Great Falls does not have an approved CO control plan, a requirement for redesignation, it was determined by EPA that the 1990 CAAA superseded that requirement with the "not classified" designation. Therefore, Great Falls was allowed to continue the redesignation process with the "Limited Maintenance Plan" strategy. The primary control measure in the plan is a federal program (the Federal Motor Vehicle Emission Control Program) that continues to require cleaner vehicles from car manufacturers over time. Although vehicle miles traveled have increased in Great Falls, ambient CO concentrations have decreased over the last ten years. The plan requires that a CO monitor remain in the Great Falls area and that contingency measures be determined by local and state officials if an exceedance or violation of the CO standard occurs. The plan was approved by EPA on May 9, 2002.

In the event of an exceedance, the local and state officials will be notified of that exceedance within 60 days. The Department and local officials will recommend appropriate contingency measures based on the meteorological conditions leading up to the exceedance, information on historical exceedances of the standard, and estimated growth within the Great Falls area and vehicle emissions.

The possibility of an exceptional or natural event will also be evaluated. Following the review of that information, the contingency measure(s) will be proposed for local adoption. The local adoption process will be completed within three months of the exceedance notification. However, the contingency measures will not be implemented until a violation has occurred. The measures need to be implemented within one year of the violation. Per EPA requirements, the contingency measures included in the plan are oxygenated fuels and wood stove curtailment programs. Contingency measures listed in the plan are suggested, NOT required measures.

1.2.4.2 FLATHEAD COUNTY HISTORY

In January 1996, Kalispell had an 8-hour NAAQS CO violation. DEQ submitted a draft CO emission inventory for base year 1996 to EPA in May 1997. A control plan is yet to be submitted, with completion pending publication of the Mobile 6 Emission Factor Model. The intersection where the violation occurred was modified during the summer of 2000 to improve traffic flow. The intersection reconstruction project will be re-analyzed to measure its effect on reducing CO emissions and to determine whether oxygenated fuels would be required as a CO control measure. Kalispell has recorded no additional exceedances of the 8-hour CO standard since 1996.

1.2.4.3 MISSOULA COUNTY HISTORY

On March 3, 1978, Missoula was designated as CO nonattainment based on air quality data collected near the intersection of South Avenue, Brooks, and Russell Streets (Malfunction Junction). In August 1981, DEQ submitted a revised CO control plan that detailed a plan to bring the area into compliance. The plan called for the reconstruction of the Malfunction Junction intersection including limited turn lanes, changing timing sequences for the traffic lights, and increased vehicle speeds. Additional reconstruction was performed on a portion of Highway 93 between Mount Avenue and Reserve Street. The reconstruction was completed in late 1985.

EPA and the Department were concerned that area-wide sources such as residential wood combustion combined with traffic emissions contribute to elevated CO levels at other areas in Missoula.

In July 1988, EPA notified the Department that the Missoula CO control plan was substantially inadequate. The Department and Missoula County prepared an emission inventory and submitted it to EPA in December 1989. No comments were received from EPA on the adequacy of this emission inventory.

Due to provisions in the Clean Air Act Amendments of 1990, Missoula was further classified as a "moderate" nonattainment area, in November 1991. "Moderate" areas are those that have a CO design value between 9.1 and 16.4 ppm for an eight hour average. Also, the provisions required implementation of an oxygenated fuels program.

The oxygenated fuels program was initiated October 1, 1992. On November 6, 1992, the Department submitted a revised Missoula CO control plan, based on the oxygenated fuels program.

In July of 1995, EPA received the CO emission inventory utilizing 1990 base year data. Compiled Missoula reasonable further progress (RFP) emission inventories for 1993 and 1996 were completed in March 2000. The Missoula CO Maintenance plan in support of redesignation was heard publicly on April 22, 2005. The Governor submission of the plan is to be determined.

1.2.4.4 YELLOWSTONE COUNTY HISTORY

In 1978, EPA listed Billings as nonattainment for CO as a result of the 1977 Clean Air Act Amendments. The NAAQS for CO is 9.0 ppm for an 8-hour average concentration, not to be exceeded more than once per year. Control plans were developed to bring Billings back into compliance following the nonattainment designation. The CO violation was attributed primarily to motor vehicle emissions. The first CO control plan included intersection reconstruction at Exposition and First Avenue. The final CO control plan incorporated computer modeling with the reconstruction in the first plan, and was approved by EPA in 1986. Following the 1990 CAAA, Billings was reevaluated based on the lack of exceedances in 1988 and 1989 CO monitoring data. EPA listed Billings as a "not classified" nonattainment area for CO in 1991. That EPA action required a new emission inventory and development of a maintenance plan for redesignation to attainment.

The Department began a redesignation effort based on a "Limited Maintenance Plan" strategy (a less restrictive plan for redesignation granted to areas with low ambient CO values or "design" values, like Billings) and a 1996 CO baseline emission inventory. The primary control measure in the plan is a federal program (the Federal Motor Vehicle Emission Control Program) that continues to require cleaner vehicles from car manufacturers over time. Although vehicle miles traveled have increased in Billings, ambient CO concentrations have decreased over the last ten years. The plan requires that a CO monitor remain in the Billings area and that contingency measures be determined by local and state officials if an exceedance or violation of the CO standard occurs. The plan was approved by EPA on February 21, 2002.

In the event of an exceedance, the local and state officials will be notified of that exceedance within 60 days. The Department and the Yellowstone County Air Pollution Control (YCAPC) program will recommend appropriate contingency measures based on the meteorological conditions leading up to the exceedance, information on historical exceedances of the standard, and estimated growth within the Billings area and vehicle emissions.
The possibility of an exceptional or natural event will also be evaluated. Following the review of that information, the contingency measure(s) will be proposed for local adoption. The local adoption process will be completed within three months of the exceedance notification. However, the contingency measures will not be implemented until a violation has occurred. The measures need to be implemented within one year of the violation. Per EPA requirements, the contingency measures included in the plan are oxygenated fuels and wood stove curtailment programs. Contingency measures listed in the plan are suggested, not required measures.

Effective use of contingency measures also provide areas like Billings (following redesignation) with an opportunity to maintain status as an attainment area even if a violation has occurred. Whereas, without this redesignation plan, if Billings experienced a violation of the CO NAAQS, it would be designated by EPA as a full nonattainment area and be required to develop a control plan to bring the area back into attainment.

1.2.5 NITROGEN DIOXIDE

Nitrogen dioxide (NO_2) has not been a pollutant of major concern in Montana. NO_2 is formed when nitric oxide (NO) is oxidized in ambient air. NO_x (oxides of nitrogen) is a term used to represent both NO_2 and NO. Emission inventories for point and area sources are usually expressed as NO_x whereas the standard is for NO_2.

Point sources of NO or NO_2 in the State include coal-fired power plants, natural gas compressor stations, oil refineries, and a kraft paper mill. A new source of some concern is temporary electric power generators installed in response to the rapid increase in electricity costs. Mobile sources primarily include automobile tailpipe emissions.

The Department has not monitored for NO_2 in several years. Additional monitoring by the Department would identify the current relationship of NO to NO_2 baseline conversions in airsheds subject to industrial permits. If resources become available the Department will conduct monitoring in Missoula and Billings. However, there has been some company monitoring for NO_2 required as conditions of PSD permits in Colstrip and Missoula, and are discussed below.

1.2.5.1 MISSOULA COUNTY HISTORY

The NO_2 issue in Missoula County centers on the Smurfit-Stone Container Corporation (Stone) kraft pulp mill near Frenchtown.

In May 1987, the company received a PSD permit from the State to burn petroleum coke in their four lime kilns. To date, only one lime kiln has been converted to burn coke. As a permit condition, Stone Container was required to operate one NO_2 monitoring site near their facility. The data collected and submitted to the State by Stone showed very low concentrations with no violations of the NAAQS or MAAQS, and monitoring was discontinued in 1992.

1.2.5.2 ROSEBUD COUNTY HISTORY

The NO_2 issue in Rosebud County centers on Montana Power Company's four coal-fired power generating plants in Colstrip. Units #1 and #2 were permitted in 1973 by the State. Unit #1 was commissioned in October 1975 and Unit #2 in August 1976. In 1978, an EPA PSD permit and State-operating permit were issued for Colstrip Units #3 and #4. In 1999, the Colstrip units emitted approximately 32,561 tons of NO_2. Emissions remain essentially unchanged today (Appendix B). Ambient monitoring data from the plant site never indicated a risk of violating the NAAQS or MAAQS, so monitoring was discontinued at the end of 2001.

1.2.6 OZONE

Ozone (O_3) is not a pollutant of major concern in Montana. All areas of the State are considered attainment for ozone. Unlike most other pollutants, ozone is not emitted directly into the atmosphere, but results from a complex photochemical reaction between volatile organic compounds (VOC), oxides of nitrogen (NOx), and solar radiation. Both VOC and NOx are emitted directly into the atmosphere from sources within the State. Since solar radiation is a major factor in ozone production, ozone concentrations are expected to peak in the summer months.

The Department conducted ozone monitoring in Billings in 1988 and 1989, and is again considering monitoring near Billings when resources become available. Billings is an area where sources emit substantial quantities of VOC and NOx. Billings also has the hot summer days, which promote the photochemical reactions for ozone formation.

1.2.7 AIR TOXICS

Air toxics cover a far-ranging suite of hazardous substances, emitted in either gaseous or particulate phases. For many years the only air toxics measured in Montana were various heavy metals (e.g., lead, arsenic, cadmium, chromium, etc.) associated with particulate emissions from the minerals industry.

Sources of air toxics are diverse and numerous. Some point sources include the oil and gas industry, mineral extraction and processing, chemical and cement plants, and wood products industry. Some area-wide sources include dry cleaners, gas stations, residential wood combustion, and motor vehicle repair/refinishing facilities. Mobile sources include tailpipe emissions from automobiles, trains, and airplanes.

The Department and Missoula County conducted a formaldehyde screening study in Missoula for the winter of 1993-94. The study showed low atmospheric formaldehyde concentrations. Another screening study for formaldehyde was conducted in Missoula from January through December 1997. The final report for the 1997 study was completed in 1998, and concluded that while the measured levels were low they did exceed some guidelines established by other states. Aldehyde levels were highest under stagnant winter conditions.

A two-year study to investigate the relationship between volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and $PM_{2.5}$ was conducted in the Missoula Valley during 2000/2001. Chemical analyses included determining anion and cation, elemental, organic and elemental carbon, and polycyclic aromatic hydrocarbon (PAH) concentrations. The final report evaluated the relationships between airborne pollutants (both gaseous and particulate) in the Missoula airshed. A chemical mass balance source apportionment model revealed a clear difference in automobile emissions between the urban and rural parts of the valley.

1.3 NETWORK MONITORING HISTORY

From the inception of the Montana air quality program, the Department has developed and maintained an air monitoring network covering problem areas throughout the State.

In the 1960s the Department used high volume samplers (hi-vols), dustfall buckets, "Montana Boxes" (for fluoride), and sulfation plates to assess ambient air quality impacts from various sources. Initial program development selected monitoring locations based on field investigations, complaints, surveys, public interest, and professional judgement of the staff.

In the early to mid-1970s, other monitoring devices were purchased. These included gas bubblers for SO_2 and NO_2, hi-vols with metal shelters (earlier versions were made of wood), and continuous analyzers (primarily for SO_2). During this time period, metals analyses began on hi-vol filters collected near smelting and mining activities.

From mid to late 1970s, the monitoring effort was refined as more sophisticated equipment became available and was deployed in the field. The State became involved in several special-purpose air pollution studies.

The Department conducted the Montana Air Pollution Study (MAPS) in which extensive ambient air monitoring was performed in Anaconda, Billings, Butte, and Missoula. The purpose of the study was to relate air pollution concentrations with measured human health effects within and between the different communities. The Department published several documents detailing the results of the study.

At about the same time, the Department was also involved with investigative and background studies for the Flathead River Basin Environmental Impact Statement (Kalispell, Columbia Falls, Polson, etc.), Poplar River project (by Scobey in northeast Montana), and energy development in eastern Montana (primarily in the Colstrip area).

As a result of the 1977 Amendments to the Clean Air Act, several areas in Montana were designated nonattainment for various NAAQS based on air quality data. Air quality monitoring increased in these areas as SIPs were being developed. Field sampling, emission inventory estimates, and dispersion modeling allowed staff to focus on worst-case or maximum concentration sites (primarily) in CO and TSP nonattainment areas.

In 1978, the EPA promulgated a standard for lead. Emphasis on lead monitoring and investigations to determine maximum concentration sites were conducted in the East Helena area as part of the original SIP. The present day East Helena TSP/lead monitoring network evolved from this study.

In 1981-82, an SO_2 surveillance network was established as a condition of the 1977 Stipulation with the Billings/Laurel industries and the State. The network, at that time, contained eight SO_2 monitoring sites equipped with meteorological sensors and one upper air station. Industrial locations, topography, wind roses, emission estimates and past ambient data were used to situate the sites in suspected maximum concentration locations or where the public may be affected.

SO_2, meteorological, TSP, NOx, and Pb monitoring networks were set up in East Helena and Colstrip which essentially encircled the point sources. These multiple site networks allowed adequate coverage (regardless of the wind direction) to determine maximum concentrations from the sources.

The Montana Air Quality Program changed further with the formation of the Standing Air Monitoring Work Group (SAMWG) in 1975, at the request of the EPA Deputy Administrator. This group was made up of people representing state and local air pollution control agencies, EPA Headquarters, and EPA regional offices. The purpose of this group was to critically review and evaluate current air monitoring activities, develop more effective air monitoring strategies, help correct identified problems, improve overall current operations, and meet projected air monitoring goals.

The SAMWG developed a number of recommendations. These were promulgated in the Federal Register on May 10, 1979 and later updated on March 19, 1986 and July 1, 1987 (40 CFR Part 58).

The areas covered included:

Appendix A - Quality Assurance Requirements for State and Local Air Monitoring Stations.

Appendix B - Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring.

Appendix C - Ambient Air Quality Monitoring Methodology.

Appendix D - Network Design for State and Local Air Monitoring Stations and National Air Monitoring Stations.

Appendix E - Probe Siting Criteria for Ambient Air Quality Monitoring.

Appendix F - State and Local Air Monitoring Stations Air Quality Annual Report.

Appendix G - Uniform Air Quality Index and Daily Reporting.

In the State's first Network Review (1979), the Department designated each monitoring site in the State as a National Air Monitoring Station (NAMS), a State and Local Air Monitoring Station (SLAMS) or a Special Purpose Monitoring Station (SPM). The NAMS/SLAMS network was developed to meet the four basic monitoring objectives as listed in Section 1.1 (two additional monitoring objectives have been added to this section relative to $PM_{2.5}$ monitoring).

Table 1 in Appendix A provides a narrative regarding any changes or modifications to the statewide ambient air monitoring network operated by the Department, county agencies, and some industrial entities, that occurred during the previous Fiscal Year, or that are proposed for the up-coming Fiscal Year. Table 2 of Appendix A provides a listing of current air monitoring stations operated by State, county governments, and some industries.

2.0 AMBIENT MONITORING NETWORK COVERAGE

This section addresses air quality problems and concerns within each Air Quality Control Region (AQCR) and county, as listed in Figure 2-1. It is a continuation of discussions presented in Section 1.2 regarding specific pollutants and problem areas. The Population numbers come from the 2000 census. Each of the EPA criteria pollutants is discussed individually regarding data collection and appropriate correlations.

The review analyzes pollutant emissions, ambient data, and meteorological data related to specific sites or problem areas. The review is intended to show that existing monitoring sites should continue to operate (because they still serve a purpose) or are not needed and should be terminated. There are some instances where some sites may need to be modified in order to meet an intended purpose.

The Department conducts meteorological monitoring utilizing various weather instruments to measure wind speed, wind direction, and temperature variables. The resulting parameters are used in support of the analysis of air pollution data and to estimate pollutant concentration through dispersion models. A discussion of meteorological monitoring areas is included in Section 2.7.

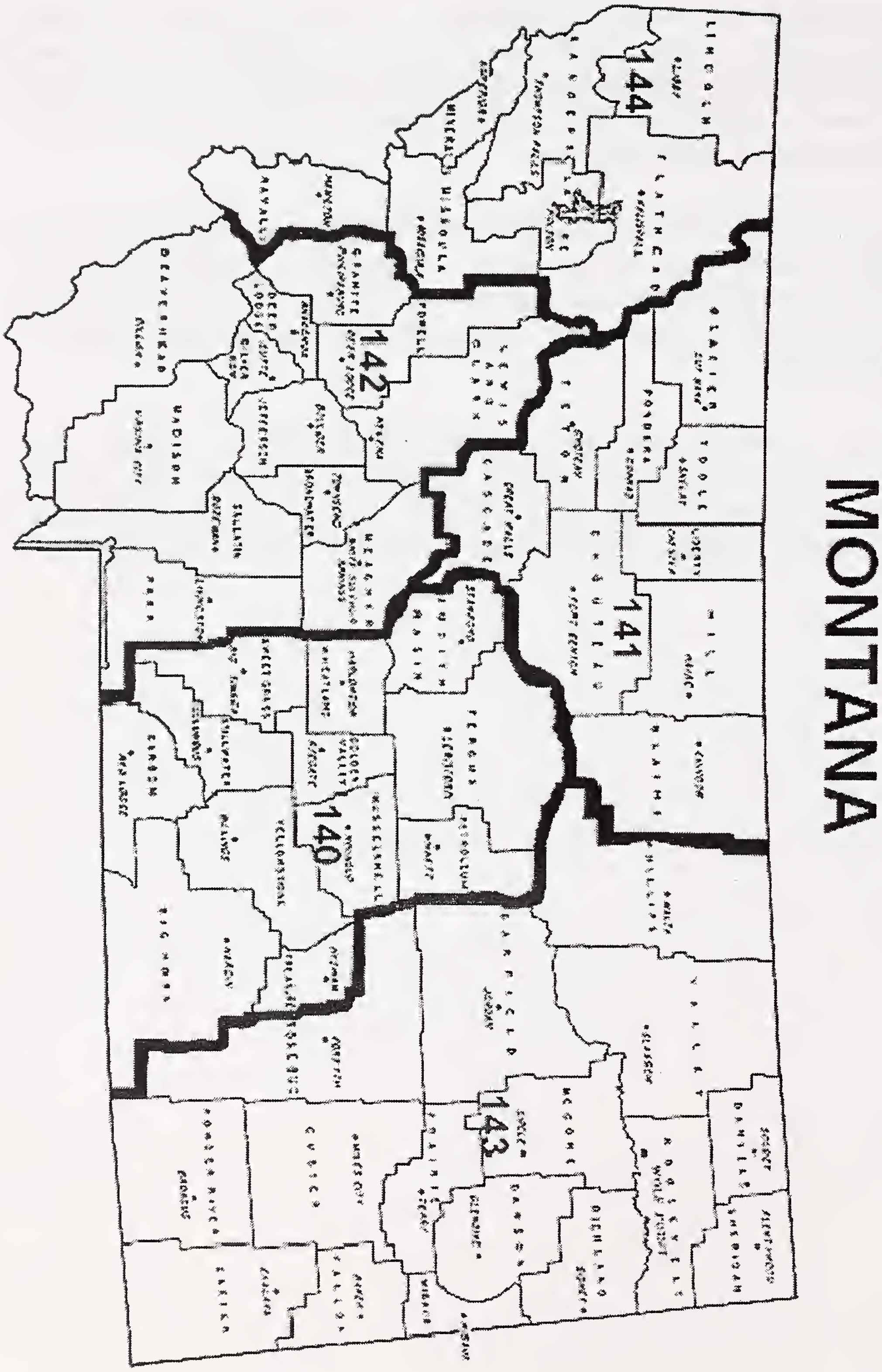
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Figure 2-1
Montana Air Quality Control Regions

2.1 PARTICULATE AREAS

Particulate matter is the largest air pollution problem in the State and has historically received a high priority from the Department. In some portions of the State, there is a total suspended particulate (TSP) record dating back to 1970. From this long historical database the Department has learned many of the significant factors that contribute to particulate pollution in Montana. It is clear that the most important factors are a combination of meteorology and topography. Mountain valleys and frequent temperature inversions often lead to particulate being trapped close to their emission source for days at a time. The ensuing particulate matter build-up has caused many communities with relatively small particulate emission rates to exceed Federal particulate standards.

In the 1970's and 1980's, a statewide TSP network was run by the Department. Data from this network proved that very few areas in the eastern portion of the State had concentrations close to primary or secondary TSP standards. Consequently, the majority of the Department's present particulate monitoring is conducted in the State's mountainous western region.

Particulate emission sources in Montana are diverse. Point sources typically can be placed into one of the following categories: coal and ore mining, non-metallic mineral processing (e.g., talc, lime, and phosphate mines), wood products industries, slash burning, and wood and coal fired power generation. Although some of these sources are significant (Appendix B), they are typically located in relatively remote areas where the threat to public health is minimal. Of greater concern in the State are area sources. Examples of area sources include reentrained road dust, residential wood combustion, and tailpipe emissions. These sources in combination with localized point sources are the cause for most of the particulate problems in Montana.

TSP particulate monitoring evolved into sampling for particulate matter less than and equal to 10 microns in diameter (PM_{10}) because of promulgation of the 1987 Federal ambient air quality standard. A similar change is happening even now as a result of the 1997 promulgation of the $PM_{2.5}$ standard. PM_{10} monitoring began in the summer of 1985, and continues, while $PM_{2.5}$ monitoring began in January 1999 at eight sites. On January 1, 2000, four new $PM_{2.5}$ sites came online in Belgrade, Great Falls, Hamilton, and Thompson Falls, bringing the $PM_{2.5}$ network to a total of 12 sites. An additional refinement of particulate monitoring was added in February of 2001 with the start of $PM_{2.5}$ speciation sampling in Missoula. Speciation is a partial chemical characterization of the collected particulate, providing insight into its source.

As part of the latest particulate NAAQS Revisions, starting in January 1998, DEQ began reporting PM_{10} data at local conditions, as well as Standard conditions, while TSP data continues to be reported at Standard conditions. $PM_{2.5}$ data is reported at local conditions.

NAAQS changes in 1997 also established a normal sampling frequency of every third day for State and Local Air Monitoring Stations (SLAMS). The sampling frequency can be reduced to every sixth day if the site meets a waiver requirement based on statistical analysis of recorded concentrations. The statistical values, T-statistic (*t-stat*), are based on the last three years of data and are included in Table 3 of Appendix A. DEQ is requesting an exemption from the increased sampling frequency required by the revised PM_{10} NAAQS. This request is included in the Annual Network Review at the request of EPA, Region VIII, and with the understanding that the requirement for increased sampling schedule applies only to monitors that are part of Montana's SLAMS network.

There are currently seven (6) PM_{10} sites that already meet the increased sampling schedule by utilizing continuous PM_{10} monitors. The remaining exemption requests are based on t-stat values that are listed in Appendix A-Table 3. All sites have t-stat values that are less than the required –1.886.

In addition, the DEQ has two sites (#30-031-0012 and #30-089-0007) that operate on a 1-in-6 schedule during the summer months (2nd and 3rd Quarter), and increase that frequency to 1-in-3 during the winter months (4th and 1st Quarters). DEQ would like to maintain the current summer schedule (1-in-6) for these sites and has included them in the exemption request, but will operate all sites with increased 1-in-3 winter sampling schedules. We believe this schedule will better serve our goals as a monitoring unit and will correspond better to the $PM_{2.5}$ sampling schedule.

Table 4 in Appendix A, lists current and proposed PM_{10} network sampling frequencies. All $PM_{2.5}$ sites operate on the one-in-three sampling frequency, while all collocated $PM_{2.5}$ and PM_{10} sites run on a one-in-six sampling schedule.

The following subsections present brief descriptions of the particulate monitoring sites that have been operated or administered by the Department. Included in the descriptions are summaries of the sources that have impacted the areas; relevant topographic and meteorological information; discussions of the data collected; and future recommendations for the sites.

2.1.1 AQCR 140 - SOUTH CENTRAL MONTANA

2.1.1.1 FERGUS COUNTY

Fergus County (population 11,893) is located in central Montana and contains several outlying frontal ranges of the Rocky Mountains including the Snowy Mountains, Judith Mountains, and Moccasin Mountains. The major city in Fergus County is Lewistown (population 5,813). The topography around Lewistown is similar to a mountain valley with frequent temperature inversions, which often leads to particulate being trapped close to their emission source for days at a time. The major sources of particulate include reentrained road dust and residential wood combustion.

TSP monitoring was conducted in Lewistown from January 1980 through December 1983 and no exceedances of the standard were found.

2.1.1.2 YELLOWSTONE COUNTY

Yellowstone County (129,352) is located in south central Montana and is bisected by the Yellowstone River. The major cities in the County are Billings (population 89,847) and Laurel (population 6,255) which are located along the Yellowstone River Valley floor. On the north and south edges of the valley, the rimrocks rise abruptly above the valley floor. The valley is approximately 12 miles wide in Laurel, but on the eastern edge of Billings, the rimrocks form a constriction that is only about one mile wide. The prevailing winds are from the southwest and are channeled down the valley. The winds are usually responsible for good dispersion, but occasional temperature inversions do occur.

Particulate monitoring has been conducted in Yellowstone County since 1971. Initial sampling used the standard hi-vol samplers for TSP. Although there have been several TSP sites in Yellowstone County, only those in the central part of Billings recorded elevated concentrations.

PM_{10} monitoring in Billings started in December 1986, and continues today at the Lockwood Park (30-111-1065) site. There has never been a recorded PM_{10} exceedance at any site in Billings.

Sampling was conducted at the Diamond Parking site (30-111-0078) from November 1992 until April 1994 when the site was shut down due to site lease problems. The site was moved two blocks south and was operating at the Norwest site (30-111-0081). On the west end of Billings, Yellowstone County Air Pollution Control (YCAPC) developed the Mount Olive site (30-111-0079) which started collecting data in July 1994. Sampling for PM_{10} at Lockwood Park started in January 1996. The Department terminated PM_{10} sampling at Mt. Olive and Norwest in 1997 due to low PM_{10} concentrations.
The maximum 24-hour PM_{10} concentration recorded during 1999 at Lockwood Park, was 111 $\mu g/m^3$ (reported at local conditions).

$PM_{2.5}$ sampling was started at Lockwood Park in January 1999. Since PM_{10} sampling continues at the same site it affords an opportunity to compare the two size fractions of particulate.

Concern for the impact of sandblasting to prepare steel for painting in the North Park area led to establishing a PM_{10} site at the North Park Head Start School during the autumn of 2004.

2.1.2 AQCR 141 - CENTRAL MONTANA

2.1.2.1 CASCADE COUNTY

Great Falls is Montana's second largest city with a population of 56,690 and is located at the confluence of the Missouri and Sun Rivers. Topography plays an important part in the climate of Great Falls. The municipal airport and National Weather Service office are located on a plateau about 200 feet higher than downtown Great Falls, which contributes to marked temperature differences between the two. The Continental Divide to the west, and the Big Belt and Little Belt Ranges to the south are primary factors in producing the frequent wintertime chinook winds in this part of Montana. The prevalence of chinook winds creates a relatively high average wind speed, which promotes good ventilation in the community most of the time.

Particulate monitoring has been conducted in Cascade County since 1971. Initial sampling used standard hi-vol TSP samplers. There have been several TSP sites in Cascade County, but only those in the central part of Great Falls and Black Eagle had elevated concentrations.

In 1985, PM_{10} monitoring started at the Downtown site (30-013-0017) in Great Falls and the site continued until 1988. Also, PM_{10} and TSP sampling occurred at the Fire Station site (30-013-0009) during this same time frame. The Department reviewed the data and determined that the Fire Station site was the maximum concentration site for Great Falls. The Department moved the PM_{10} sampler from the Downtown site to the Fire Station in July 1988. The Department terminated PM_{10} sampling at the Fire Station site in 1997 due to low PM_{10} concentrations.

$PM_{2.5}$ monitoring began at Great Falls High School (30-013-1026) January 1, 2000. This site is in a residential neighborhood near the city's center. Fine particulate is the pollutant most likely to accumulate and become troublesome during stagnant conditions so the values coming from this site provide an excellent measure of air quality in Great Falls.

2.1.3 AQCR 142 - SOUTHWESTERN MONTANA

2.1.3.1 BEAVERHEAD COUNTY

The principal PM_{10} air quality concern in Beaverhead County centers on industrial activity six miles south of Dillon around the Barretts Minerals Inc. talc plant. Dillon is located near the center of the Beaverhead Valley. The valley floor is about 5400 feet in elevation with relatively low (6700 feet) rolling mountains located ten miles to the west. Although higher mountain ranges such as the Pioneer, Snow Crest, and Ruby are nearby, the Dillon area is open and experiences good ventilation.

In September 1984, a monitoring site for TSP was established at the Beaverhead County Courthouse (30-001-0001). This site operated for two years until June 1986. The monitoring data showed relatively low readings and continued monitoring was not warranted.

2.1.3.2 BROADWATER COUNTY

Broadwater County is located in west central Montana. The east boundary of the County is on the crest of the Big Belt Mountains. Broadwater County is sparsely populated (4,385) with most of the county dominated by dry land farming. The Missouri River dissects Broadwater County. Canyon Ferry Reservoir on the Missouri River is the dominant feature in the county. The PM_{10} area of most concern in Broadwater County centers on the city of Townsend (population 1,867). Current particulate monitoring is limited to operating permit required monitoring at some mines.

2.1.3.3 GALLATIN COUNTY

The PM_{10} areas of most concern in Gallatin County (population 67,831) center on the cities of Bozeman and Belgrade. Bozeman (population 27,509) lies at the eastern edge of the Gallatin Valley and is home to Montana State University. Bozeman does not have any major air pollution sources, but does have problems with traditional area-wide sources such as emissions from paved and unpaved roads, and residential wood combustion. Belgrade, with a population of 4,846 lies nine miles west of Bozeman. Belgrade has one major air pollution point source, the Louisiana Pacific Corporation sawmill, whose emissions include a wood-fired boiler and dust from the log deck. Belgrade's main particulate emission sources include paved and unpaved roads, residential wood combustion, and the sawmill.

The dimensions of the Gallatin Valley are approximately 12 miles wide and 20 miles long. This large area typically allows pollutants to disperse with moderate to fast wind speeds. However, during fall and winter, infrequent calm inversion conditions do allow elevated PM_{10} concentrations to accumulate around the urban areas. Also, winter road sanding contributes to elevated PM_{10} concentrations from reentrained road dust in the spring.

The Department has been monitoring for particulate matter in Bozeman since 1978. The primary site has been at the East Main City Building (30-031-0002). Other locations were also monitored for TSP, however, the East Main site proved to be the worst-case site in Bozeman at that time.

In 1985, the Department installed a PM_{10} monitor at the East Main site and in 1987, when the PM_{10} standard was promulgated, the Department discontinued all Bozeman area TSP monitoring. The Department installed a second PM_{10} sampler at the East Main site on January 11, 1991. Recently, the Bozeman area's population has exploded, creating traffic congestion and other factors that contribute to increased PM_{10} concentrations. Despite the growth, data from the East Main site remained well below the NAAQS and showed no discernable trend. Since the site was inappropriately located it was closed mid-year 2002. A new site is being built at the West end of Bozeman at the waste water treatment plant.

In Belgrade, the Department received numerous complaints and a public petition for air quality monitoring in the city. Although the community is small, it has experienced some urban sprawl from nearby Bozeman and has a major sawmill whose emissions include a wood-fired boiler and dust from the log deck. However, the main concern is centered on dust from paved and unpaved roads. The Department installed two PM_{10} samplers in a central location in an open field behind a grain elevator. Sampling started in October 1991 at the ConAgra (30-031-0008) site, and collocated sampling began in July 1997. Since sampling began readings have been low, with an occasional high reading; the highest was 137 ug/m^3 (reported at Standard conditions) on November 11, 1993. The Department added $PM_{2.5}$ monitoring to the Belgrade site on January 1, 2000. A comparison of 2000 PM_{10} and $PM_{2.5}$ values revealed a 2.5/10 ration of 0.43. This is very similar to Helena and would indicate a pretty normal ratio of smoke to dust. Both would appear to be somewhat elevated. A land use change in the spring of 2005 changed the site from suburban to industrial and forced the termination of particulate monitoring. A PM2.5 comparison study between the old ConAgra site and the new Wastewater Treatment Plant at Bozeman will be attempted during the winter of 2005-2006. Snow cover and the end of the construction season should return the ConAgra site to its original character.

In the southern end of Gallatin County, West Yellowstone and Big Sky are becoming PM_{10} concerns. West Yellowstone is a main entrance to Yellowstone National Park, and experiences high traffic counts nearly year round. Particulate emissions come from dirty streets, residential wood combustion (RWC), and motor vehicle tailpipes, especially in the winter with high snowmobile traffic.

Big Sky, a rapidly growing year-round resort area, is located on the west side of the very narrow Gallatin River Canyon in the Madison Mountain Range. This area's main PM_{10} emission source is suspected to be wood smoke from RWC and summer forest fires/controlled burns.

In October 1994, a PM_{10} site (30-031-0009) was installed just east of West Yellowstone at the West Entrance Station of Yellowstone National Park. This micro-scale sited PM_{10} sampler mainly monitored snowmobile traffic travelling past the West Entrance Station. The sampler was located immediately east of the kiosk (ticket booth). Consistently low values for the 24 hour average lead to closure of the site in March 1995. Carbon monoxide monitoring at the park entrance, which began in 1998, has shown that snowmobile traffic produces significant short term pollution which almost surely includes $PM_{2.5}$, so continuous $PM_{2.5}$ monitoring was added to the CO site during the autumn of 2003.

The Department installed a PM_{10} sampler in a vacant lot near the intersection of Firehole Avenue and Dun Raven Street. The Firehole site (30-031-0012) became operational on November 27, 1995. Measured annual averages have been around 20 $\mu m/m^3$. If all of the material being measured as PM_{10} was in fact 2.5 micrometers and smaller, the measured values would be significant. It would be useful to perform $PM_{2.5}$ measurements in the West Yellowstone community.

2.1.3.4 JEFFERSON COUNTY

Particulate concerns in Jefferson County (population 10,049) center around area sources in the northern part of the county. This part of the county serves as a bedroom community for persons living near and commuting to Helena. The northern part of Jefferson County includes the unincorporated communities of Montana City and Clancy as well as several adjacent subdivisions. These communities are located along the Prickly Pear Creek drainage with the Continental Divide range to the west and the Elkhorn Mountains to the east. The terrain tends to funnel the airflow on a north-south axis, but the area does experiences temperature inversions and calm winds.

The Montana City School has been a proposed location for several years for a PM_{10} site. This proposed site is located in northern Jefferson County near Helena and East Helena. The Ashgrove Cement Inc. plant is located a short distance northeast of this site and the ASARCO lead smelter to the north. This is a fast growing residential area with emissions from residential wood combustion and reentrained road dust that may impact the Helena area. These area sources have the potential to cause elevated particulate concentrations.

2.1.3.5 LEWIS & CLARK COUNTY

Most particulate problems in Lewis & Clark County (population 55,716) center around the city of Helena (population 25,780) and the town of East Helena (population 1,642). These two communities are situated near the southern end of the Helena Valley. The valley is large (approximately 16 miles by 16 miles), lies east of the Continental Divide, and is surrounded by mountains on all sides. Diurnal temperature inversions and inversions lasting for a few days are common. Predominant wind direction is from the northwest through southwest.

Particulate monitoring has been conducted in Lewis & Clark County since 1957. Early sampling was performed using standard hi-vol samplers for TSP. Many years of particulate monitoring in Helena has been conducted at the Cogswell Building (30-049-0001) near the state capitol building. The Department terminated the Cogswell site on September 20, 1997 due to low PM_{10} concentrations.

There have been several other sites in Helena, some were associated with Lewis & Clark County's wood stove curtailment program. PM_{10} sampling began in Helena in 1985 when the Cogswell TSP sampler was converted to PM_{10}. Starting in 1991, the Department added the Lewis & Clark County Health Department's Lincoln School (30-049-0018) PM_{10} site to its SLAMS network. Concentrations at this site have been consistently low. A new PM_{10} site at Rossiter School (30-049-0024) in the Helena Valley started data collection on November 5, 1996.

Visibility data was collected using a nephelometer at the Lincoln School site (30-049-0018) from December 1988 to March 1993. The county used the visibility data, correlated to PM_{10} levels, to call alerts for their mandatory wintertime wood stove curtailment program. The nephelometer was replaced with a Tapered Element Oscillating Microbalance (TEOM) in October 1993. The TEOM outputs near real-time PM_{10} data. Year around data from the TEOM has been stored in AIRS since start-up and will continue indefinitely. $PM_{2.5}$ monitoring was begun at the Lincoln School site in January 1999. The Helena Valley was heavily impacted by forest fires during the summer of 2000, and the 24-hour particulate standards were exceeded on several occasions.

A considerable amount of particulate sampling has also been conducted in the East Helena area. Most of this particulate sampling has been conducted in connection with lead analyses around ASARCO's primary lead smelter. The earliest TSP/Pb monitoring in East Helena (monitoring with data submittal to AIRS) was in 1972. Please refer to Section 2.3.1.1 for a complete discussion on current TSP/Pb monitoring and proposed network modifications in East Helena.

PM_{10} monitoring was established September 1, 1997 in Lincoln at Lincoln 1st Bank (30-049-0025). Lincoln is located west of the Continental Divide in the Blackfoot River Valley. Lincoln is situated in a narrow river valley in a mountainous area with limited air dispersion and little control over open burning and residential wood burning. The Lincoln area typically experiences numerous inversions and poor visibility during the winter months. A maximum 24-hour PM_{10} concentration of 130 $\mu g/m^3$ (reported in local conditions) was measured in 1999. The highest concentrations occurred during the late autumn, winter, and early spring. This timing implied that smoke was the most likely pollutant. $PM_{2.5}$ sampling collocated with the PM_{10} sampling during 2002 found that almost all of the material being collected during this time period was $PM_{2.5}$, and that the fine particulate standard was the one most likely to be exceeded. The 1st Bank site was discontinued at the end of 2002, and a $PM_{2.5}$ site began operation at the Parker Clinic on the west end of Lincoln. Results from the Parker Clinic site were surprisingly low with the average annual $PM_{2.5}$ being 5-6 $\mu g/M^3$. This was only half the levels being measured at the old site. Both Parker Clinic and the $PM_{2.5}$ site were closed in April 2005. We hope to create a new site on the east side of Lincoln during the summer of 2005.

2.1.3.6 SILVER BOW COUNTY

Butte is a city with an urban population of approximately 34,000. The elevation averages 5300 feet with the Continental Divide surrounding the city on three sides. Wind speeds in Butte are usually low and the area is susceptible to temperature inversions in the fall and winter. The old part of Butte is built on a hillside next to the Berkeley Pit mining area and the new part of town is built on the valley floor to the south.

Particulate monitoring has been conducted in Silver Bow County since 1971. In 1978-80, the Department conducted TSP monitoring in Butte as part of the Montana Air Pollution Study (MAPS). The network consisted of five sites in the city center. The Department observed that the city center sites and specifically the Greeley School site (30-093-0005) had the highest particulate concentrations. The Department decreased its network to this single site in 1984. The Department started daily PM_{10} sampling at the Greeley School site in September 1987.

In January 1991, the Department established the Butte-Greenhouse site (30-093-0008) located near the Harrison Avenue-Interstate 90 intersection, because the 1991 SIP identified this location in the maximum emission grid. However, during the two years of operation, the Greenhouse site consistently had lower readings than the Greeley School site. With EPA approval, the Department shut down the Greenhouse site at the end of June 1992.

Visibility data was collected using a nephelometer at the Butte-Greeley School site (30-093-0005) from July 1989 to March 1993. The visibility data, correlated to PM_{10} concentrations, was used by the Butte-Silver Bow County Health Department (BSBHD) to call air pollution alerts for their mandatory wintertime wood burning curtailment program. The BSBHD nephelometer was replaced with a TEOM that started operating in August 1993. Year around data from the TEOM has been stored in AIRS since start-up. Manual PM_{10} sampling was discontinued in 1997. $PM_{2.5}$ monitoring was begun at this site in February 1999.

2.1.4 AQCR 143 - EASTERN MONTANA

2.1.4.1 RICHLAND COUNTY

The air quality concerns in Richland County (population 9,667) center around Sidney. Sidney (population 4,274) is situated close to the Yellowstone River near the North Dakota border. In the late 1970's and early 1980's, the area experienced an economic upturn due to oil and gas exploration and development. Other industrial sources in the Sidney area include Montana Dakota Utilities (coal-fired power plant) and Holly Sugar Corporation (sugar beet processing facility).

In 1983, the Department installed a hi-vol sampler in downtown Sidney (30-083-0010). This site operated until September 1987. At that time the PM_{10} standard had been promulgated by EPA and the Department felt that its resources were better applied to PM_{10} problems in the western valleys.

2.1.4.2 ROSEBUD COUNTY

The air quality concern for particulate in Rosebud County (population 9,383) centers around the cities of Colstrip and Ashland. In the vicinity of Colstrip there are five coal-fired power generating plants and two large coal mines. Montana Power Company Colstrip (Colstrip), Western Energy Company, Colstrip Energy Limited Partnership (CELP), and Big Sky Coal Company have operated particulate sampling networks around their facilities as conditions of their permits. In Ashland, there have been recent concerns due to area sources including wood and coal burning stoves.

The Department requested Montana Power (in Colstrip) to install and operate a PM_{10} site at their MPC Site #3 (30-087-0700). Two samplers (reporting and collocated) were installed in December 1989 and the data was submitted to the Department. The TSP samplers at MPC Sites #1 & #2 (30-087-0701 and -0702, respectively) were replaced with PM_{10} samplers in July 1992. At that time the Department required MPC to operate the PM_{10} samplers at all sites on an every third day sampling schedule. In July 1994, MPC requested that the Department review their Colstrip PM_{10} network. As a result of that review, changes were allowed starting on July 1, 1995. The PM_{10} sampling frequency at Site #1 was reduced to once every sixth day and the PM_{10} sampling at Site #2 was terminated. The long history of low values led to termination of Site #1 in 2002.

2.1.5 AQCR 144 - NORTHWESTERN MONTANA

This part of Montana is very mountainous and heavily forested. The valleys of northwestern Montana have the poorest atmospheric dispersion in the State, and high particulate concentrations historically have been a problem in this area. Two areas were originally designated nonattainment areas for TSP and now AQCR 144 has eight PM_{10} nonattainment areas. The Department has devoted considerable time and resources to solving the particulate problem in northwest Montana.

2.1.5.1 FLATHEAD COUNTY

The particulate problems in Flathead County (population 74,471) center on the communities in the greater Flathead Valley. These communities include Columbia Falls, Kalispell, and Whitefish.

Columbia Falls is an industrial town of 3,645 people located in the northeast corner of the Flathead Valley. In the vicinity of Columbia Falls are a plywood-particle board-sawmill complex, an aluminum reduction plant, and two other sawmills. Wind patterns in the area are dominated by drainage winds through Badrock Canyon to the east and through a gap north of town which drains the North Fork of the Flathead River. The area is susceptible to temperature inversions in the fall and winter months.

Particulate monitoring has been conducted in Columbia Falls since 1971. Initial sampling was performed using standard hi-vol TSP samplers. The two principal sites were at the Anders Residence (30-029-0005) and the Junior High School (30-029-0003). In May 1985, the Department installed a PM_{10} sampler at the Junior High School. The Anders Residence site was closed in 1987 after collected TSP data from both sites were compared and determined they were measuring the same air mass.

Data from the PM_{10} samplers at the Junior High School site showed no violations of either the annual or short-term PM_{10} standards from 1988 through 2002. Complaints about dust from a bark processing facility on the north edge of town lead to informal sampling in the nearby neighborhood starting in July 2000, and ultimately to the establishment of a new monitoring site just south of the bark processing facility. PM_{10} values from the new site proved to be consistently higher that the old Jr. High School site, so it was closed at the end of 2002.

Kalispell has a population of 14,223 persons, and the majority of the 74,471 county residents live within a 15-mile radius of the city. Kalispell serves as a business, service and shopping center for the greater Flathead Valley. The Flathead Valley is located west of the Continental Divide and is a fairly wide valley (14 miles across). The climate is mild with calm or low wind speeds and the area is susceptible to temperature inversions in the fall and winter.

Particulate monitoring has been conducted in Kalispell since 1971. From 1977 to 1982, Kalispell was one of the communities involved with the Flathead River Basin Environmental Impact Statement (EIS). Monitoring was conducted at several locations in the basin and it was determined that most of the high concentration sites were associated with anthropogenic sources in the city centers.

Visibility data was collected using a nephelometer at the Courthouse East site (30-029-1017) in Kalispell from January 1991 to March 1993. The nephelometer was used to estimate particulate levels for the voluntary wintertime wood burning curtailment program. The nephelometer was replaced with a TEOM in October 1993. Year round data from the TEOM has been stored in AIRS since start-up. In 1995, this site was shut down and the TEOM moved to the Kalispell Universal Athletics (30-029-1015) PM_{10} site. On June 27, 1995, EPA approved the Department's request to replace manual PM_{10} samplers at selected sites with TEOMs.

The Universal Athletics site had problems with adequate airflow, security, and convenience. In response to these problems, the TEOM was moved to the new central Kalispell site at Flathead Electric (30-029-0097) on July 1,

1999. A comparison of manual PM_{10} data from the Universal Athletics site with TEOM data from the Flathead Electric site indicated that the Flathead Electric site adequately represented the area, so the Universal Athletics site was closed in June 2001.

Another PM_{10} site was developed northeast of Kalispell along U.S. Highway 2 at the Evergreen Fire Station (30-029-0043). A Plum Creek sawmill and plywood plant is located 0.5 mile west of the site. This site started operation in June 1994 and produced some mid-range PM_{10} concentration values. In 1998, the sampler was collocated and the sampling frequency was increased. The resulting site was overcrowded and in poor condition. Review of the data showed that while the siting was source oriented, the measured values had never been very high and had been declining each year. Since the site was representative of only a small population and the source did not warrant monitoring, the Evergreen Fire Station site was terminated at the end of 1999.

$PM_{2.5}$ monitoring in Kalispell was first conducted at the Evergreen Fire Station site starting in January 1999. Space problems and the desire for a site more representative of population exposure led to a decision to relocate the $PM_{2.5}$ monitors to the new Flathead Electric site, which is nearer the city's center. This move was completed in June of 1999

Whitefish is a city of approximately 5,032 people located in the northwest corner of the Flathead Valley. Whitefish is not a major commercial or industrial center, but a year around tourist destination. The area is susceptible to temperature inversions in the fall and winter months.

As part of the Flathead River Basin EIS, the Department measured TSP in Whitefish from 1981 to 1983. The data showed that the area was in compliance with the TSP NAAQS. However, the Department believed that the site was not located in the maximum concentration area. As a result of the 1990 Network Review, the Department installed a PM_{10} site located in the central business district of Whitefish at Markus Foods (30-029-0039). Since sampling began in April 1991 numerous PM_{10} exceedances have been recorded at the Markus Foods site. An exceedance was recorded at Markus Foods on March 24, 1997 with a measured value of 178 $\mu g/m^3$.

To confirm the Markus Foods site as the maximum concentration PM_{10} site, a PM_{10} saturation study was done during February through April 1993. Eleven sites, most were located in areas with potentially high PM_{10} levels, were chosen and portable saturation samplers were deployed. The results of the study revealed that elevated PM_{10} levels occurred in the general downtown area and on south U.S. Highway 93, with no statistical difference between the two areas. A TEOM was placed at the Markus Foods site in August 1995 with a manual PM_{10} sampler. A collocated manual PM_{10} was installed on January 1, 2000 to replace the collocated site lost due to Evergreen Fire Station site closure. $PM_{2.5}$ monitoring was begun in January 1999 at Markus Foods. A maximum 24-hour $PM_{2.5}$ value of 27 $\mu g/m^3$ (reported in local conditions) was measured in 1999.

Structural changes at Markus Foods and a growing business in roasted chicken (the resulting smoke was vented to the roof) forced closure of the site in March of 2001. A replacement site in the downtown area was not possible, and a new site was established on U.S. 93 where it enters downtown. A comparison of the old Markus Foods site and the new Dead End site below shows them to be essentially comparable.

Comparison of Whitefish Particulate Sites										
	Markus Foods						Dead End			
Year	1996	1997	1998	1999	2000	Average	2002	2003	2004	Average
PM-10	28.9	32.2	28.5	26.0	23.3	27.8	29.8	24.6	24.6	26.3
PM-2.5				10.5	11.5	11.0	9.3	12.8	10.0	10.7

2.1.5.2 LINCOLN COUNTY

The particulate problems in Lincoln County center on the communities of Eureka, Libby, and Troy.

Eureka is a small town in northwestern Montana with a population of approximately 1,100. The town is situated in rolling hills along the Tobacco River approximately five miles upstream from Lake Koocanusa. Particulate monitoring for TSP started in 1984. Twenty-four hour concentrations exceeded the short-term TSP NAAQS on a few occasions. In 1987, the Department replaced the TSP sampler with a PM_{10} sampler and sampling continued through June 1992. Since PM_{10} levels were low, sampling was discontinued.

Libby is a small town with a population of approximately 2,626. It is located along the Kootenai River in northwestern Montana. The Kootenai Valley runs approximately east to west in Libby and is only about 2 miles wide. The Libby area may have the worst ventilation of any community in Montana. During the fall and winter months, winds are almost always calm or light. The light winds with the persistent temperature inversions contribute to the significant accumulation of particulate in the narrow valley.

Particulate monitoring has been conducted in Libby since the mid-1970s. The principal TSP sites were at the Brown Residence (30-053-0010) and the Lincoln County Courthouse (30-053-0012).

In May 1985, the Department installed a PM_{10} sampler at the Courthouse site; in August 1985, the Department discontinued the TSP sampler at the Brown Residence. Data analysis revealed that hi-vol TSP samplers at the Lincoln County Courthouse and the Brown Residence sites were measuring the same airshed.

Visibility data was collected using a nephelometer at the County Courthouse Annex site (30-053-0018) in Libby from December 1986 to October 1993. The nephelometer was operated by the Lincoln County Health Department and was used to call alerts for their mandatory wintertime wood burning curtailment program.

The Department replaced the nephelometer with a continuous PM_{10} TEOM monitor at the Lincoln County Annex site (30-053-0018), which is one block east of the Courthouse site. The TEOM began operating in October 1993 and was used for the Libby RWC curtailment program, the Montana Smoke Management program, and to correlate data with the PM_{10} samplers at the Courthouse. On April 1, 1995, the Courthouse site was shut down. The TEOM became Libby's primary SLAMS PM_{10} compliance monitor and operated until it was replaced by a beta attenuation monitor in October 2003. $PM_{2.5}$ was added at the Courthouse Annex site in January 1999 and the samplers were collocated a year later. The measured winter-time $PM_{2.5}$ values were high enough to push the annual average over the $PM_{2.5}$ NAAQS. To better understand the situation and identify the source of the particulate, $PM_{2.5}$ speciation sampling was started in February 2002. The problem is a large amount of volatile organic carbon associated with the fine particulate during the winter months. A chemical mass balance study during the winter of 2003-04 found that 82% of the winter-time $PM_{2.5}$ mass was from wood smoke. To correct the problem, a wood stove replacement program will be implemented during the summers of 2005 and 2006. Continuous PM2.5 monitoring began in 2005 to more closely monitor the effect of the corrective action.

Troy is a small town 18 miles west of Libby with a population of approximately 1,000. The town is situated along the Kootenai River Valley and like Libby has some of the worst ventilation in the State. In October 1991, the Department installed two samplers at the high school (30-053-0019) in the northwestern part of town. Readings were consistently low for the three years that the site was operated. The site was shut down June 30, 1995.

2.1.5.3 MISSOULA COUNTY

Particulate problems in Missoula County center on the city of Missoula. Missoula is situated at the confluence of the Bitterroot and Clark Fork Rivers in western Montana. The city proper has a population of approximately 51,000, but the Missoula Valley contains approximately 75,000. The Missoula Valley is fairly narrow, approximately 6 miles across, and effectively isolated from the larger Bitterroot Valley north of Lolo. The valley is susceptible to temperature inversions in the fall and winter months and wind speeds are normally low throughout the year.

Particulate monitoring in Missoula has been conducted since 1971 at several sites in the Missoula Valley. During the early and mid 1970's, the highest concentrations were measured in the downtown area at the Courthouse Roof site (30-063-0001).

Over the years, the air-monitoring network in Missoula has been quite extensive and comprehensive. The Missoula City-County Health Department (MCCHD) has monitored for particulate at several locations and has operated sites in Bonner (near a major sawmill/plywood factory), in Lolo (at the waste water treatment plant), near Frenchtown (by a kraft pulp mill), in East Missoula, in the Rattlesnake area, in southwest Missoula near the south hills, and on the western edge of the city. In 1984, MCCHD also started collecting PM_{10} data at their Rose Park (30-063-0020) and Boyd Park (30-063-0024) sites in addition to TSP data. The maximum PM_{10} concentration recorded in 1984 was 257 $\mu g/m^3$ at Rose Park. In 1985, the County Health Department (30-063-0031) TSP site was established and PM_{10} sampling started in 1987.

Continuous PM_{10} data has been collected in Missoula since 1987 using continuous PM_{10} monitors (Beta attenuation type and TEOM) at the Boyd Park site. The continuous PM_{10} data has been submitted to AIRS since 1992. Missoula local government personnel use the continuous PM_{10} data and forecast information from the National Weather Service to make predictions for their mandatory wintertime residential wood burning curtailment program. In 1995, the Boyd Park TEOM became the site's primary compliance and SLAMS monitor. $PM_{2.5}$ monitoring, primary and collocated, began in February 1999. $PM_{2.5}$ speciation began on a one in three schedule in March of 2001.

$PM_{2.5}$ monitoring was also started on the Health Department roof (30-063-0031) in February 1999. This site is shared with a manual PM_{10} sampler operating every six days.

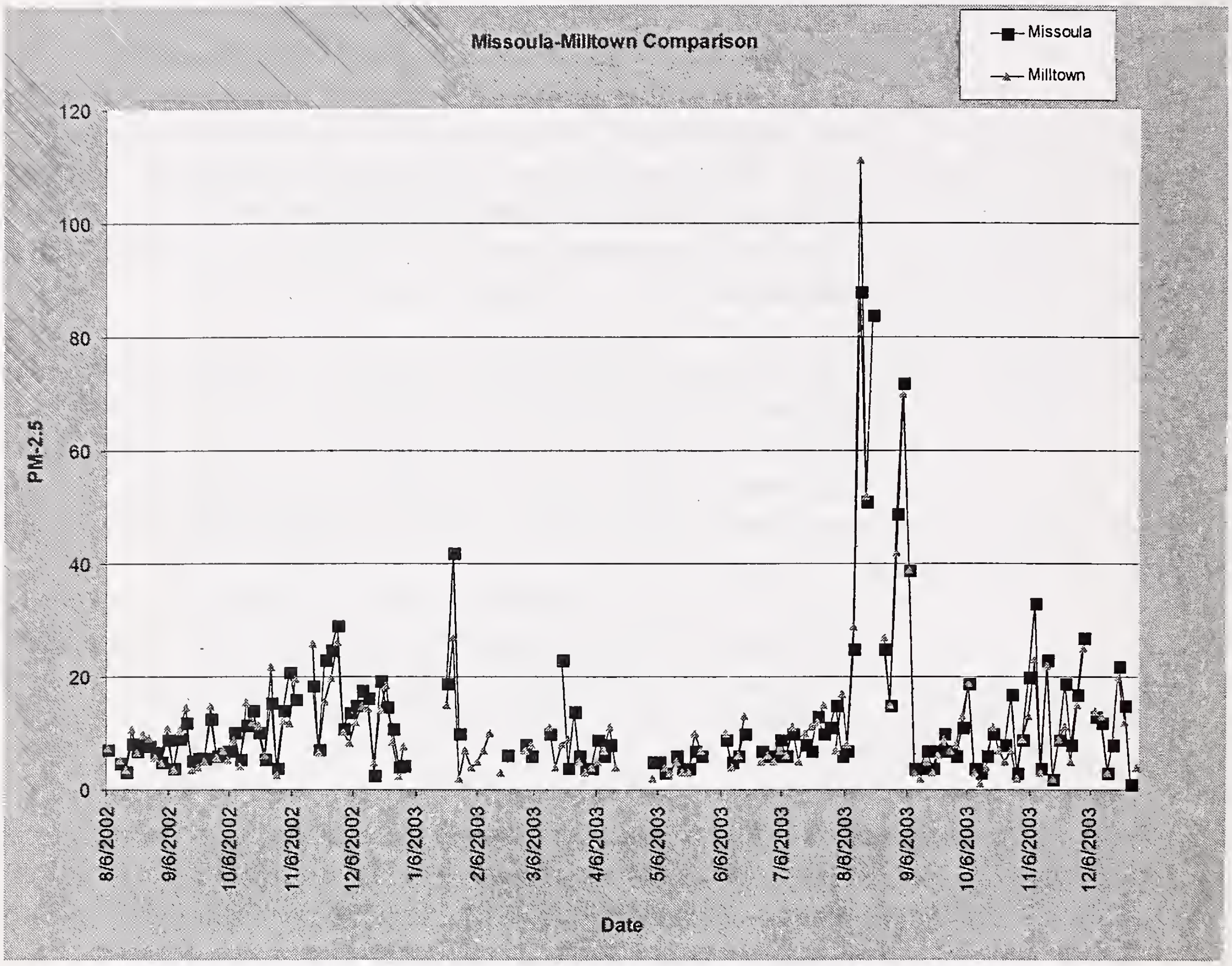
Following a Health Department building renovation in 2001, the monitoring network was restructured for greater efficiency. Since analysis of the $PM_{2.5}$ data shows little difference between the Health Department and Boyd Park, all $PM_{2.5}$ monitoring was moved to the Health Department roof. PM_{10} monitoring at the Health Department became continuous using the TEOM relocated from Boyd Park. At Boyd Park, PM10 sampling continues using a manual sampler on a one in six schedule (see Appendix A-Table 3 for t-stat calculations).

The emission inventories developed in the 1992 SIP showed that the highest particulate concentration grids were in south Missoula (where the Boyd Park site is located) and in downtown Missoula (where the Health Department site is located). The Department and the MCCHD will continue to operate these two sites to track compliance with the NAAQS.

MCCHD operates two PM_{10} sites (in cooperation with Stone Container) near their Frenchtown kraft pulp mill. These sites were operated as TSP sites until May 18, 1992, when the samplers were switched to PM_{10} samplers.

The Department installed a PM_{10} monitor in Lolo (Lolo Lube Center #30-063-0035) with siting oriented toward "hot spot" traffic monitoring. Data collection began on August 4, 1997 and ended in June 2000. Over the period of operation, the maximum 24-hour value detected was 52 $\mu g/m^3$ with the annual average was at about 15 $\mu g/m^3$ (both reported at local conditions).

The Bonner/Milltown area is separated from the Missoula Valley by Hell Gate and has significant wood products industry in a narrow valley. MCCHD began $PM_{2.5}$ sampling at Lions Park in Milltown in August 2002 to evaluate air quality in this area. The results presented below show that daily average values differ very little between Missoula and the Bonner/Milltown area. The Milltown site was discontinued in 2005.



Seeley Lake is a small community in the narrow valley between the Mission and Swan Mountains. It receives a lot of winter snow and subsequently a lot of traction material. There is also considerable wood burning for heat. A new site (30-063-0021) was created during the summer of 2005 to evaluate both PM_{10} and $PM_{2.5}$.

2.1.5.4 RAVALLI COUNTY

Particulate concerns in Ravalli County center around the city of Hamilton. Hamilton is a small (population 3,705), but rapidly growing community situated in the center of the Bitterroot Valley. Hamilton is about 50 miles south of Missoula and about 300 feet higher in elevation. Hamilton often experiences better wintertime ventilation than nearby Missoula. There are times, however, when temperature inversions in Hamilton can trap pollutants and cause elevated levels.

In 1983, the Department began TSP sampling at the Ravalli County Courthouse (30-081-0001) in the city center. Sampling was initiated due to citizen complaints about dust and wood stove emissions. In 1986, the

Department installed a PM_{10} sampler at the same location and continued to collect TSP and PM_{10} data until 1987.

On July 31, 1987, the EPA promulgated new standards for PM_{10}. Due to the low concentrations recorded at the Hamilton site, the Department discontinued both TSP and PM_{10} monitoring during the fall 1987.

Due to the growing population and renewed citizen concerns, the Department reopened the Ravalli County Courthouse PM_{10} site (30-081-0001) in June 1994. A second site, MT Gold Realty (30-081-0002) was installed two blocks away adjacent to U.S. Highway 93 and began operation in July 1994. The MT Gold site has consistently produced PM_{10} values higher than the Courthouse site. Neither site measured PM_{10} concentrations that exceeded the NAAQS. The Department terminated the Courthouse site on July 31, 1997, due to low PM_{10} concentrations. While the MT Gold Realty site showed higher particulate concentrations than the Courthouse site, the values were not high, and the trend was toward steadily declining values. With the decision to add $PM_{2.5}$ monitoring in Hamilton and the development of electrical problems at the MT Gold site, the Department terminated MT Gold on October 6, 1999 and reopened the Courthouse site. The Courthouse site is more representative of the community and far superior in terms of access and reliable operation. PM_{10} sampling resumed at Hamilton Courthouse on October 9, 1999 and $PM_{2.5}$ sampling started on January 1, 2000. The desire to install continuous $PM_{2.5}$ monitoring in Hamilton to track smoke impact from summer wild fire events led to more changes. PM_{10} values were low, and it would be difficult to install a continuous sampler on the Courthouse roof, so the Courthouse site was closed in June 2006, PM_{10} monitoring was discontinued, and a new continuous $PM_{2.5}$ site was created about a block away at ground level. The new site was the former parking spot #46 in the Sheriff's parking lot (30-081-0007).

The Bitterroot National Forest voluntarily started two new PM_{10} sites in the Bitterroot Valley to measure forest related burn activities on the valley's air quality. One site is located at the Stevensville-Ranger Station (30-081-0003) approximately 30 miles south of Missoula. This site uses a TEOM to provide continuous data. Low PM_{10} values have been consistently reported since the site started in July 1994. The other site is located at the West Fork Ranger Station (30-081-0004) along the West Fork of the Bitterroot River south of Darby and about 20 miles south of Hamilton. This site proved difficult to support during the forest fires of 2000, so the West Fork Ranger Station site was closed. Construction of a new "fire cache" warehouse forced relocation of the Stevensville-Ranger Station site a short distance north and east in 2001. The relocated Ranger Station site was terminated in June 2004.

2.1.5.5 SANDERS COUNTY

Particulate concerns in Sanders County center around the city of Thompson Falls. Thompson Falls is a small town with a population of approximately 1,500 persons. It lies on the north side of the Thompson Falls Reservoir, a small impoundment on the Clark Fork River. The Clark Fork Valley around Thompson Falls runs east and west; mountains rise to 7000 feet both to the north and south of Thompson Falls. Like other western Montana valleys, the area experiences severe temperature inversions during the fall and winter months.

The Department conducted limited TSP monitoring in the early 1970's and again in 1978. It was not until 1983 that the Department established a permanent TSP site at the Sanders County Courthouse (30-089-0003). Readings collected during the first few years showed levels exceeding the NAAQS for TSP. In 1985, the Department installed a PM_{10} sampler at the same location. The PM_{10} data from 1985 to 1987 was limited, but did record concentrations approaching the proposed NAAQS for PM_{10}.

In February 1988, the Sanders County Courthouse site recorded a PM_{10} concentration in excess of the 24-hour PM_{10} standard. The Department initiated daily sampling in July 1988, which continued until July 1, 1992. In 1990, CMB monitors were installed at the Railroad site (30-089-0005), and at the Muster Ranch site (30-089-0006).

A decision to re-roof the courthouse forced the Department to remove the site on July 8, 1999 and create a new site at the High School. The new Thompson Falls High School site (30-089-0007) started PM_{10} sampling October 3, 1999 and $PM_{2.5}$ sampling was added beginning January 1, 2000.

2.2 SULFUR DIOXIDE AREAS

As mentioned in Section 1.2.2, there are only four areas in the State where SO_2 is an issue or concern. These are the Billings/Laurel area in Yellowstone County, East Helena in Lewis & Clark County, Great Falls in Cascade County, and Colstrip in Rosebud County.

2.2.1 AQCR 140 - SOUTH CENTRAL MONTANA

2.2.1.1 YELLOWSTONE COUNTY

The sulfur dioxide issue in Yellowstone County has been with the air quality program since its inception in the mid to late 1960s. Early monitoring with sulfation plates and SO_2 analyzers showed that the Laurel area exceeded air quality standards and the Billings area measured elevated levels.

Billings and Laurel are situated along the Yellowstone River Valley in south central Montana, which runs southwest to northeast and is a predominant topographical influence on the airflow in the area. In Billings, cliffs or rimrocks located both north and south of the river cause channeling. The distance between the north and south rims of the cliffs range from about one to five miles. In Laurel, the valley tends to be a little wider and the predominant high terrain is not close by. The cities of Billings and Laurel including all of the industrial sources are located along the river valley. Nearby terrain is often higher than the highest smokestacks.

Wind roses in the area are reflective of the valley orientation. The predominant wind direction is from the southwest with northeast being the second most predominant direction. As with many areas in Montana, the area experiences inversions in the fall and winter months. This causes pollutants to become trapped and build up for extended periods. Inversion breakup occurring after sunrise causes built-up concentrations to lower to the ground and results in elevated readings measured at the monitoring stations. With frontal passage or higher wind speeds, winds can cause plumes to directly impact the ground resulting in high SO_2 concentrations.

In 1981-82, the Department (through a cooperative effort with the industries) designed and installed a sulfur dioxide monitoring network. The network consisted of eight SO_2 monitoring sites with meteorological monitors and an upper air site employing acoustic radar and pilot balloons. Six of the SO_2 sites were in Billings and two were in Laurel.

Following the 1981-82 study, the SO_2 monitoring network was scaled down in various stages until it reached a minimum early in 1987. The network was scaled down to four sites in 1983: Coburn Road (30-111-0066), Lockwood Park (30-111-0065), North Johnson Lane (30-111-0064) and Taft School (30-111-0064). It should be noted that no sites were kept in the Laurel area since the two sites in the 1981-82 study showed compliance with the NAAQS and MAAQS. The Department felt that greater emphasis was needed in the Billings/Lockwood area. In December 1983, the Taft School site was shut down to reduce the operator's workload in Billings. The network of three continued until June 1986 when a leasing problem caused the Department to shut down the North Johnson Lane site. In January 1987, the Department shut down its Lockwood Park site due to further cutbacks of personnel in the Billings office. At that time the network was reduced to a single site, Coburn Road, which has been the backbone of the network.

The 1987 Legislature provided additional funding and the State was able to add one additional site, Scottish Rites (30-111-0073), to its network. At the same time, the six Billings/Laurel industries combined resources to address SO_2 issues including monitoring. The Billings/Laurel Air Quality Technical Committee (BLAQTC) was formed in the spring 1987. BLAQTC hired a contractor, purchased equipment and installed three SO_2 monitoring stations. Two of the sites were in Billings, Lockwood Park (30-111-1065) and Coulson Road (30-111-2004), and one was in Laurel, Laurel-BLAQTC (30-111-0016). By the end of 1987 the combined State and BLAQTC network consisted of five sites.

In November 1988, the Department started collecting peak five-minute SO_2 averages for each hour. The EPA met with the Department and BLAQTC in February 1990 and offered two SO_2 analyzers to conduct peak monitoring in the range from 1 to 5 ppm. In September 1990, the Department and BLAQTC installed one of these monitors at the Coburn Road site and the other at the Lockwood Park site. These monitors collected peak five-minute data for six months until March 1991. Peak data was also collected at the other three sites with analyzers in the range of 0 to 1 ppm. After completion of the study, an EPA contractor reviewed and analyzed the data; the results were inconclusive. The Department continues to collect peak five-minute SO_2 data, but none is collected at the industry sites. For the calendar year of 2002 the Department is collected and reported not just the maximum five minute value in each hour, but all of the five minute values in each hour.

The 1987 monitoring network remained the same until October 1989. Upon agreement with the Department and BLAQTC, the Scottish Rite site was moved to Ponderosa School (30-111-0076) and the Coulson Road site was moved to Brickyard Lane (30-111-2005). The group felt that the old sites had served their purpose and that higher SO_2 concentrations might be found at the new sites. The EPA approved all of these sites in a letter dated May 14, 1990.

On June 30, 1992, the Ponderosa School site was shut down due to low readings. EPA approved this action in a letter dated June 22, 1992. The Ponderosa monitoring shelter was moved to the Coburn Road location, approximately 30 feet west of the existing air monitoring trailer. In an attempt to reduce vandalism, the instruments in the original Coburn Road trailer were moved to the new (e.g., old Ponderosa) shelter on October 1, 1992. The old Coburn Road trailer was surplused.

Dispersion modeling for the Billings Generation Inc (BGI) facility operating permit, indicated elevated SO_2 levels in the Lockwood area. The Department reviewed and refined the results of the modeling studies and concluded that additional SO_2 monitoring sites were needed. At the location of the modeled maximum SO_2 "hot-spot" the Department installed an SO_2 monitor. The site, Sacrifice Cliff (30-111-0080), was approved by EPA effective May 19, 1993, and data collection began at that time. Also, as a result of the permitting process, BGI operates SO_2 monitors at two other modeled "hot-spots". The first one, Johnson Lane (30-111-2006), is located near Johnson Lane, south of I-90, and east of the existing Lockwood Park site. The second site, Pine Hills (30-111-2007), is located east of the I-90/I-94 junction, in the elevated terrain near the Pine Hill School. EPA approved both sites on March 7, 1994 with data collection starting on November 2, 1993.

The Sacrifice Cliff site measured the highest SO_2 values in the system through 1996 when a change to low sulfur coal at the BGI facility resulted in a dramatic drop. Since then it has consistently measured lower values than the Coburn Road site. The Sacrifice Cliff site was terminated in June 2001.

A consortium of Billings' industries installed an SO_2 analyzer at the Mt. Olive site with data collection starting on December 1, 1995. This group also started a new site at Senior High School (30-111-2008) with CO, SO_2 and meteorological monitoring. SO_2 data collection at Senior High began December 26, 1995. Sampling at the Mt. Olive and Senior High sites were discontinued on July 1, 1997.

In August 1999, an additional SO_2 site began operation on Coburn Road approximately 0.5 mile north of the existing Coburn Road Site. The new station, Lower Coburn Road (30-111-0083), was predicted to have moderately high concentrations with high frequency. Three years of data reveal a very low annual average, and very infrequent high concentrations. This site will be terminated during the summer of 2003.

To better document population exposure and monitor trends, DEQ reopened the Mt. Olive site in the growing, west end of Billings. The site began monitoring SO_2 and CO in October 2001. SO_2 monitoring was also added to the Bridal Shop site (30-111-0082) which has been monitoring only CO. Results from the Mount Olive site showed that area emissions in the west end had declined substantially since the earlier monitoring period in the late '90s (see table below), so the site was terminated in 2004.

Billings-Mount Olive							
	Carbon Monoxide				Sulfur Dioxide		
	1 Hour		8 Hour				
Year	1st Max	2nd Max	1st Max	2nd Max	1st Max Hr.	2nd Max Hr.	Annual Ave
1993	10.6	10.4	6.4	6.3			
1994	10.4	9.5	7.6	6.4			
1995	12.1	10.4	6.6	6.1			
1996	11.8	9.8	8.2	7.1	0.024	0.018	0.0044
1997	11.5	10.9	7.6	6.1			
2002	5.7	5.4	3.3	3.2	0.007	0.007	0.0018
2003	5.9	5.7	4.1	3.9	0.007	0.006	0.0022

Sulfur dioxide measurements at the Bridal Shop site were very low with only occasional increases when the wind was directly from the Conoco refinery, so monitoring was terminated in 2004 when it became necessary to relocate the downtown monitoring site.

There has been substantial development on the high ground to the north of the Yellowstone Valley. The development has been accompanied by pollution complaints. Considering the frequency of light south winds during the summer and the relationship of this population to the refinery stacks, it seems wise to evaluate population exposure to SO_2 in this area. A new site (30-111-0084 Beartooth School) began monitoring in the ‘heights’ during the summer or 2003.

2.2.2 AQCR 141 - CENTRAL MONTANA

2.2.2.1 CASCADE COUNTY

The SO_2 issue in the Great Falls area became apparent as the result of dispersion modeling performed in support of a permit application by Montana Refining. The Wire Mill Road site (30-013-2000) began reporting valid data on November 14, 1994. However, dispersion modeling conducted in 1999 determined the monitoring site should be lower and closer to the refinery. As a result of the modeling, a new site, Race Track (30-013-2001) was established and began reporting valid data on May 4, 2000.

2.2.3 AQCR 142 - SOUTHWESTERN MONTANA

2.2.3.1 LEWIS & CLARK AND JEFFERSON COUNTIES

In East Helena, the industrial source of SO_2 is a primary lead smelter. The Helena Valley is a fairly wide valley (approximately 16 miles by 16 miles) and lies east of the Continental Divide. The valley is surrounded by mountains and experiences significant temperature inversions in the fall and winter months. East Helena is located at the southern end of the valley. Predominant wind directions are from the northwest through southwest.

Monitoring by ASARCO in the 1970's revealed exceedances of the SO_2standard in the East Helena Area. At that time ASARCO operated six monitoring stations in the East Helena area.

From 1974-1982, the Department operated three SO_2 sites adjacent to ASARCO's sites. After the acid plant was installed and the new blast furnace baghouse stack was built, ambient concentrations dropped dramatically and the State discontinued their sites. In 1991, ASARCO operated six SO_2 monitoring stations in the East Helena area including Kennedy Park (30-049-0703), East Station (30-049-0711), Kleffner Road (30-049-0701), Water Tank (30-049-0702), Microwave Tower (30-043-0903), and Ash Grove Siding (30-043-0908).

In 1992, dispersion modeling performed as part of the SIP revisions indicated that potentially high ambient SO_2 levels were occurring in the elevated terrain to the southwest and southeast of the smelter, in Jefferson County. As a result of the modeling, the ambient SO_2 monitoring network was significantly revised in the spring of 1993, and consisted of thirteen SO_2 sites.

On June 30, 1997, monitoring was discontinued at Ash Grove Siding (30-043-0908), Kleffner Road (30-049-0701), Top of Microwave Hill (30-043-0909), McClellan Creek Road #3 (30-043-0910), McClellan Creek Road #5 (30-043-0912), McClellan Creek Road #7 (30-043-0914), McClellan Creek Road #8 (30-043-0915), and McClellan Creek Road #9 (30-043-0916). Following these changes the ASARCO SO_2 Network consisted of five active sites including Microwave (30-043-0903), Water Tank (30-049-0702), Kennedy Park (30-049-0703), McClellan Creek Road #4 (30-043-0911), and McClellan Creek Road #6 (30-043-0913). This reconfigured network was adequately distributed to show attainment and maintenance of the NAAQS and MAAQS.

In April of 2001 the ASARCO smelter was shut down for an indeterminate period removing any significant SO_2 source in the Helena Valley. SO_2 monitoring was suspended when the smelter stopped operation.

2.2.4 AQCR 143 - EASTERN MONTANA

2.2.4.1 ROSEBUD COUNTY

The sulfur dioxide issue in Rosebud County centers on Montana Power Company's (MPC) four coal-fired power generating plants in Colstrip. The topography of the area is semi-rugged to rolling terrain. The area sometimes experiences temperature inversions, but generally receives good airflow and is usually well ventilated.

The company maintained an ambient network around the facility for an extended period and continues to support a tribal air monitoring program on the Northern Cheyenne reservation. The tribal network consists of three sites: Morning Star (30-087-0760), Garfield Peak (30-087-0761), and Badger Peak (30-087-0762). Years of data from the sites around the facility revealed that any impact is much farther out, and SO_2 monitoring at the facility was discontinued at the end of 2001.

2.3 LEAD AREAS

2.3.1 AQCR 142 - SOUTHWESTERN MONTANA

2.3.1.1 LEWIS & CLARK COUNTY

Lead is a pollutant of concern in East Helena where the primary source is the ASARCO lead smelter. After promulgation of ambient air quality standards for lead, the East Helena area violated the lead standard based on ambient monitoring.

Recent TSP/Pb network modifications include the following: the Microwave (30-043-0903) TSP/Pb background site was shut down on June 30, 1991; and the Hadfield site (30-049-0719) was shut down on April 1, 1993, with the equipment moved to the current Prickly Pear site (30-049-0727). Prickly Pear is a site located directly north of the ASARCO smelter, across U.S. Highway 12, west of Prickly Pear Creek on Pacific Street. This site is near the modeled maximum Pb concentration site (modeling conducted with the assumption that all the SIP control strategies have been implemented). Prickly Pear started data collection as a collocated site in November 1993. In 1998, Prickly Pear recorded quarterly averages of 0.9 :g/m^3 for all four quarters, the largest values of the ASARCO monitoring network. The Prickly Pear Pb site became a NAMS site July 1, 1999.

On July 1, 1995, cadmium, arsenic, zinc, copper, nickel, and chromium analysis began on the filters collected at Firehall. At the start of 1999, the monitoring network consisted of the following four sites: Firehall (30-049-0714), Dartman Field (30-049-0724), Old Railroad (30-049-0726), and Prickly Pear Creek (30-049-0727). Dartman Field was lost to development and reclamation on October 5,1999, and in response, Pb sampling was added to Kennedy Park (30-049-0703) about 200 meters to the west in September 1999. Prickly Pear consistently measured higher Pb values than the near by Firehall and Kennedy Park sites, so at the end of December 2000 the network of TSP/Pb samplers was reduced to Prickly Pear and Old Railroad. These sites operated through the end of 2001. Following the suspension of smelting, lead values dropped precipitously and no longer warranted monitoring.

2.4 CARBON MONOXIDE AREAS

Carbon monoxide is a pollutant of concern in the larger communities in Montana. The Department, in cooperation with county air pollution agencies, monitors for CO in Butte, Billings, Great Falls, Kalispell, and Missoula. Also, a CO monitor is stationed at the West Yellowstone entrance to Yellowstone National Park. Most high concentrations occur in wintertime months due to stagnant weather conditions, cold temperatures, and poor fuel combustion from the various sources. As part of the network review process, the Department has looked at other communities where CO may be a problem. Descriptions of carbon monoxide monitored sites and potential monitored areas are discussed in the following sections.

2.4.1 AQCR 140 - SOUTH CENTRAL MONTANA

2.4.1.1 YELLOWSTONE COUNTY

In Yellowstone County, the city of Billings is situated along the Yellowstone River Valley, which runs from southwest to northeast and is a predominant topographical influence on the airflow in the area. Located both to the north and south of the river are cliffs or rimrocks that cause channeling. The distance between rims is about one mile wide where the downtown area is located.

In 1978, the Billings downtown area was designated nonattainment for CO due to high readings at the 27th & Montana monitoring site (30-111-0053). Data collected at the Metra Parking Lot site (30-111-0061), during the two years following the modifications to Main Street (1985-86), indicated compliance with the NAAQS and the Department submitted a redesignation request.

EPA informed the Department that a maximum concentration microscale site needed to be established and that all locations needed to show maintenance and attainment of the NAAQS in order to process the redesignation request. Attempts to locate a new EPA-approved site followed a somewhat convoluted path. EPA wanted a site just north of the 4th Avenue entrance to the Metra Parking Lot. Permission could not be obtained primarily due to traffic and safety concerns. A site was temporarily located near the Main Street-6th Avenue North intersection (30-111-0074), but soon after it started operation, water pipes and valves were unearthed below the monitoring shelter. It was decided that this site was impractical considering future access to the water valves.

After a lengthy approval process, EPA granted permission to locate a microscale CO monitor just south of the 4th Avenue North entrance to the Metra Parking Lot (30-111-0075). Carbon monoxide data was collected from October 1988 to November 1992 and did not record any exceedances of the MAAQS or NAAQS.

In order to show attainment and maintenance of the standard at all locations, the Yellowstone County Air Pollution Control conducted CO grab sampling studies during the winters of 1988-89 and 1989-90, and a CO saturation study in December 1991. The last study identified three maximum CO concentration areas: 1) the west side along 24th Street West; 2) the downtown business district along North 27th Street; and 3) Grand Avenue and 15th Street. As a result of the EPA approved saturation study the Department and the Yellowstone County Air Pollution Control program installed two new CO monitoring sites in Billings during the fall of 1992 and terminated the Metra CO monitoring site (30-111-0075).

The west side site, Mount Olive (30-111-0079) was located on 24th Street West just north of Central Avenue. It began operation in November 1992 after approval by EPA in a letter dated February 5, 1993. The Mount Olive site was discontinued July 1, 1997 due to low readings. It was reopened in October 2001 to track the CO trend in the growing, west end, but closed again in 2004 when it became clear that CO levels had declined even further. The downtown site, Diamond Parking Lot (30-111-0078), was located on North 27th Street, between 3rd & 4th Avenues. It also began operation in November 1992 and was approved by EPA in a letter dated April 2, 1993. The Diamond Parking Lot site was discontinued on April 8, 1994, and the Norwest site (30-111-0081) was established, across 27th Street and one block south, in the same area. Following EPA approval, data collection started at the Norwest site on April 25, 1994.

In 1995, a consortium of Billings industries started a site at Senior High School (30-111-2008) with CO, SO_2 and meteorological monitoring. The

Senior High site was discontinued on July 1, 1997 due to low ambient readings.

The latest site, Bridal Shop (30-111-0082) was installed on Grand Avenue near the intersection of Grand Avenue and Division and valid data collection began on December 11, 1997. Termination of the Norwest site occurred in July 1999, because the nearby Bridal Shop site had superior air flow and was recording higher 8-hour averages.

2.4.2 AQCR 141 - CENTRAL MONTANA

2.4.2.1 CASCADE COUNTY

In Great Falls, a corridor along 10th Avenue South was designated nonattainment for CO in September 1980 due to high readings at the Midas Muffler site (30-013-0015) located at 10th Avenue South and 9th Street. This site ran from 1977 until 1979 when a leasing problem forced the State to relocate the monitor about twelve blocks east to the Great Falls Federal site (30-013-0021). This site operated until 1983 when the monitoring trailer was again moved to the Pardis Clinic site (30-013-1023). The Pardis site was located one block west and across the street from the original Midas Muffler site. The Department anticipated higher concentrations at this site because it was located at a lower elevation and the traffic volume on this section of 10th Avenue South was higher.

Sampling at the Pardis Clinic site began in November 1983 and was established as a middle scale site. In May 1987, and again in August 1987, EPA informed the State that "in order to determine whether an area is attaining the NAAQS, a control agency must locate at least one monitoring station in the area of maximum concentration." EPA interprets such a location for CO to be a microscale site. On November 4, 1987, the Department moved the probe to be within microscale siting. The site remained microscale until November 16, 1988, when the site was moved back to middle scale at the landowner's request.

Carbon monoxide data collected at the Pardis Clinic site showed a few exceedances of the 8-hour standard from 1986-88. A review of the exceedances showed that most occurred in the evening hours with light to calm winds. In 1983, a staff review of data showed that area-wide sources could be contributing to the elevated readings.

Since microscale siting at the Pardis Clinic could not be continued, the Department moved the CO trailer about a block west on 10th Avenue South at the Skyway Conoco site (30-013-1025) on November 9, 1989.

EPA approved this site modification request in a letter dated November 2, 1989. This microscale site operated through June 2001.

The Department and Cascade County conducted a saturation study in January 1992 to determine a maximum concentration CO site in Great Falls. The results from this study were generally inconclusive. Although, there was one location a few blocks east of the existing Skyway Conoco site that had slightly higher CO concentrations, the differences in the concentrations were statistically insignificant. Most of the concentrations recorded during the study were low due to windy conditions that resulted in excellent atmospheric ventilation. The dispersion conditions during the study are typical of those in Great Falls most of the year.

In 1999, the highest 1-hour concentration was 7.8 ppm, and the highest 8-hour concentration was 3.6 ppm. Reconstruction of 10th Avenue South was completed in June of 2000, and improved traffic flow. Traffic counts and intersection "wait times" indicated that maximum concentrations probably occurred near the 2nd st. and 10th ave. intersection. DEQ moved the Skyway Conoco site in July 2001 to escape its existing siting problems and monitor this new projected "hot spot". A comparison of the first year of data from the new Overlook Park site (30-013-0001) with the older data from Skyway Conoco suggests that it may have slightly higher peaks of slightly shorter duration.

2.4.3 AQCR 142 - SOUTHWESTERN MONTANA

2.4.3.1 GALLATIN COUNTY

West Yellowstone, located at the southern end of Gallatin County, represents a main artery to Yellowstone National Park. In 1998, the West entrance accounted for 38% or 1.2 million of the total 3.1 million annual visitors to the park. West Yellowstone, at an elevation of 6,666 feet, is located in a circular topographic depression known as a caldera. The entrance area and highway corridor into the park are relatively flat, rimmed with 30-40 foot lodge pole pines, and the Madison River flows nearby.

In October of 1998, the Department installed a microscale carbon monoxide special purpose monitoring station on the northeast side of the park entrance (30-031-0013). The major monitoring emphasis at startup was mobile emissions from snowmobiles during the winter months; however, the station is in operation year round. January 1999 summary statistics presented a total of 19,639 snowmobiles entered the park, of which 13,794 or 70% entered through the West entrance. The west entrance counted 46,800 snowmobiles entering the park during the 2001-2002 winter, indicating a substantial growth in traffic.

To date, no exceedances of the 1-hour and 8-hour NAAQS or MAAQS have been recorded at the station. The highest 1-hour reading observed is 18.2 ppm making it appear unlikely that the 1-hour standards will be exceeded. The situation with regard to the 8-hour standard is not so encouraging. The highest 8-hour average measured is 8.9 ppm which is definitely pushing the 9.0 ppm NAAQS. It is entirely likely that the the 8-hour standard will be exceeded under high traffic conditions with very poor dispersion.

In the northern end of Gallatin County lies the Gallatin valley, home to the cities of Bozeman and Belgrade. The Gallatin valley, and the area around Bozeman in particular, has been experiencing explosive growth over the last 10 years. According to the 2000 census, Gallatin County grew 34% from 1990 to 2000. Bozeman (population of 27,509), located at the eastern edge of the valley, houses the main campus of Montana State University (12,000 students). The Department recognizes the need for a winter-time CO saturation study in Bozeman during an inversion.

2.4.3.2 SILVER BOW COUNTY

Butte has an urban population of approximately 34,000 persons. The elevation averages 5300 feet with the Continental Divide surrounding the city on three sides. Wind speeds in Butte are usually calm and the area is susceptible to severe temperature inversions in the fall and winter. The old part of Butte is built on a hillside next to the Berkeley Pit. The new part of town is built on the "flats" to the south where much of the strip development is located. Harrison Avenue is a street that links uptown with the flats. Interstate 90 is a major east/west highway that slices through the lower part of town with off-ramps to Harrison Avenue.

In 1978-79, the Department operated a site at Hebgen Park (30-093-0018) and the highest 8-hour concentration recorded was 7.8 ppm. In 1987-88, a SPM site for CO was operated on Continental Drive (30-093-0022) near the main entrance to the Berkeley Pit and within a few blocks of the Department's PM_{10} site at Greeley School (30-093-0005). The highest 8-hour reading was 9.1 ppm. Neither site was considered a maximum concentration site for CO.

The Department conducted a CO saturation study in Butte for about two weeks in mid-December 1995. The study showed the highest CO concentrations on Harrison Avenue near the Interstate. The Department has established a CO monitoring site, Storm Sewer (30-093-0053), at the probable high concentration location at the intersection of Dewey and Harrison Avenue. Valid data collection began November 7, 1997. The Department feels this monitor is adequately stationed to record maximum CO concentrations in the Butte area, and there are no plans for an additional monitor.

2.4.4 AQCR 144 - NORTHWESTERN MONTANA

2.4.4.1 FLATHEAD COUNTY

Kalispell has a population of approximately 14,223 persons although the majority of the 74,471 county residents live within a 15-mile radius of the city. Kalispell serves as a business, service and shopping center for the greater Flathead Valley. The Flathead Valley is located west of the continental divide and is a fairly wide (14 miles across) valley. The climate is mild with calm or low wind speeds. Like many communities in the western part of the State, the area is susceptible to temperature inversions in the fall and winter. Two major highways serve Kalispell; Highway 2, an east/west route, and Highway 93, a north/south route. These two highways meet at a stoplight in Kalispell at Main Street (Highway 93) and Idaho Avenue (Highway 2). The queuing time for this intersection can be lengthy, allowing motor vehicles to idle for extended periods, emitting large quantities of CO.

Residential wood combustion in Kalispell is common as much of the community has easy access to wood from local forests. The CO emitted by traffic at the Main Street-Idaho Avenue intersection combined with the area-wide contribution from wood stoves has the potential to create elevated concentrations of CO.

The Department conducted a CO saturation study in Kalispell from December 16, 1994, to January 2, 1995. In part because of the saturation study results a CO monitoring site (30-029-0045) was established near the intersection of Idaho and Main in Kalispell with data collection beginning on October 31, 1995. Two exceedances of the 8-hr CO NAAQS were recorded at the Idaho and Main site in January 1996. In 1999, the highest 1-hour concentration was 9.1 ppm, and the highest 8-hour concentration was 5.3 ppm. Reconstruction of the intersection to improve traffic flow and reduce queuing time forced the Department to remove the Idaho and Main site March 31, 2000.

A second CO site, Laser School (30-029-0046), was established in Kalispell with data collection beginning November 1, 1996. Laser School was sited as neighborhood scale to help define the extent of the CO problem in Kalispell. The Laser School site was terminated June 20,1999 because of air flow issues created by three large Fir trees. A new site, Flathead Electric (30-029-0097), was established three blocks to the south on June 24, 1999. The Flathead Electric site is designed to meet the neighborhood scale siting criteria, and again is planned to assist in defining the geographic extent of the CO problem in Kalispell. It has been found that the Flathead Electric site frequently approaches the peak concentrations measured at the Shopko site after a lag time. The CO appears to be widely distributed under stagnant conditions.

The 1994 CO saturation study in Kalispell identified a second possible problem area as the intersection of Idaho and LaSalle. This is where the main east-west road through Kalispell, Idaho Street (Highway 2), turns into LaSalle (Highway 2) and heads toward Glacier National Park. The equipment from the Idaho and Main site was moved to a location about 100 yards west of this intersection and reborn as the Shopko site (30-029-0048) with data collection starting April 4, 2000. The Department chose to evaluate this intersection while the Idaho and Main intersection was under construction. After three winters of monitoring CO, the Shopko site did not appear to be appreciably different from the old Idaho and Main site. It was terminated, and the equipment was returned to the Idaho and Main vicinity. The new site (Moose's Saloon 30-029-0010) began operation during the summer of 2003.

2.4.4.2 MISSOULA COUNTY

Missoula is situated at the confluence of the Bitterroot and Clark Fork Rivers in western Montana. The city has a population of approximately 51,000 persons. The Missoula Valley is fairly narrow (approximately 6 miles across) and similar to other western Montana valleys because it is susceptible to temperature inversions in the fall and winter months. Wind speeds are calm or low throughout much of the year and allow pollutants to acccumulate.

The city of Missoula was designated nonattainment for CO based on high concentrations recorded at the intersection of Brooks (U.S. 93), Russell, and South streets. This intersection and the monitoring site are known as Malfunction Junction (30-063-0005). Exceedances of the 8-hour CO standard have also been observed at other air monitoring sites in Missoula: Boyd Park (30-063-0024), in the downtown area on Higgins Avenue (30-063-0023), and Lions Park (30-063-0019).

The Malfunction Junction site was temporarily shut down in July 1983 and reactivated in January 1986 after the completion of the reconstruction. The CO data collected from 1986 to 1992 showed some exceedances of the 8-hour CO standard.

A second CO site in Missoula operated at Boyd Park in the southern part of the city operated from August 1981 to March 1991. It was suspected that most emissions measured at this site were from residential wood combustion although CO from traffic may also have contributed. In May 1991, the Department made a request to EPA to permanently shut down the site. The site had not measured an 8-hour CO exceedance since 1987 and the site was in the same general area as the maximum concentration site Malfunction Junction.

EPA responded to the Department's request in a letter dated August 8, 1991. They disapproved of the proposal to permanently shut down the Boyd Park CO site. EPA needed additional documentation that Malfunction Junction is the maximum CO location and a second CO monitoring site in Missoula was not necessary (e.g., that Malfunction Junction can adequately address all contributing sources to the CO problem in Missoula, whether they are mobile, point or area sources). The Department provided EPA with additional justification in a letter dated September 16, 1991. EPA agreed to the Boyd Park shut down request in a letter dated October 4, 1991.

During December 1992, the Department and Missoula County conducted a CO saturation study in Missoula. The final report was submitted to EPA on April 20, 1993. EPA's response, in a letter dated May 24, 1993, states, "We agree, the study confirms the Malfunction Junction intersection has the highest carbon monoxide levels in the Missoula area and the existing monitoring station know as "Malfunction Junction" is the maximum concentration monitoring station."

The Department has no plans for a second CO monitoring site in Missoula and intends to operate only the Malfunction Junction site for maintenance purposes. There have been no measured exceedances in Missoula since the implementation of the oxygenated fuels program in October 1992. The station currently operates first and fourth quarters, and is offline second and third quarters.

2.5 NITROGEN DIOXIDE AREAS

As mentioned in Section 1.2.5, nitrogen dioxide is not a pollutant of major concern in Montana. There are, however, four areas in the State where NO_2 was recently monitored by companies as a permit condition. These areas are in Colstrip, Missoula, Roundup, and Hardin.

2.5.1 AQCR 143 - EASTERN MONTANA

2.5.1.1 ROSEBUD COUNTY

The nitrogen dioxide issue in Rosebud County centers on Montana Power Company's four coal-fired power generating plants in Colstrip. The topography of the area is semi-rugged to rolling terrain. The area sometimes experiences temperature inversions, but generally receives good airflow and is usually well ventilated.

The company maintained an ambient network for NO_2 around the facility through 2001, and continues to support a tribal air monitoring program on the Northern Cheyenne reservation. Nearly twenty years of data collection around the facility never revealed significant NO_2 in the area. The facility clearly had no local NO_2 impact, so monitoring was terminated in 2001.

2.5.2 AQCR 144 - NORTHWESTERN MONTANA

2.5.2.1 MISSOULA COUNTY

Missoula is situated at the confluence of the Bitterroot and Clark Fork Rivers. The Missoula urban area is home to nearly 62,000 persons. The Missoula Valley is similar to other western Montana valleys in that it is susceptible to temperature inversions in the fall and winter months.

The nitrogen dioxide issue in Missoula County centers on the Smurfit-Stone Container (Stone) kraft pulp mill near Frenchtown. In May 1987, the company received a PSD permit to burn coke in a lime kiln. As a permit condition, Stone Container was required to operate one NO_2 monitoring site near their facility. The data collected and submitted to the State by Stone showed very low concentrations with no violations of the NAAQS or MAAQS. The NO_2 monitoring was discontinued at Stone's request on June 1, 1992 due to low ambient concentrations. Monitoring will resume when another lime kiln is converted to burn coke.

Recently proposed changes at the Louisiana –Pacific facility are expected to increase NO_2 emissions and have forced the company to do background monitoring in the Frenchtown area. Monitoring for ozone and nitrogen oxides started January 2001. This background information is expected to support permit decisions in the Missoula Valley for the near future.

2.6 OZONE AREAS

Ozone (O_3) is not a pollutant of major concern in Montana. All areas of the State are considered attainment for ozone. Unlike most other pollutants, O_3 is not emitted directly into the atmosphere, but results from a complex photochemical reaction between volatile organic compounds (VOC), oxides of nitrogen (NOx), and solar radiation. Both VOC and NOx are emitted directly into the atmosphere from sources within the State. Since solar radiation is a major factor in O_3 production, O_3 concentrations peak in the summer months.

Ozone has been monitored in Billings, Great Falls, Butte, Colstrip, Glacier National Park, and Missoula by several different organizations. Much of the data collected in the 1970's is not credible due to the older style analyzers used and poor quality assurance.

2.6.1 AQCR 140 - SOUTH CENTRAL MONTANA

2.6.1.1 YELLOWSTONE COUNTY

Billings is in an area where sources emit fairly large quantities of VOC and NOx. Billings is also an area where hot summer days may promote photochemical reactions. EPA defines the ozone monitoring season for Montana as June 1 to September 30.

The Department first monitored for ozone in Billings at the 27th and Montana monitoring site (30-111-0053) from September 1975 to July 1978. Several hourly concentrations exceeded the MAAQS, but none exceeded the NAAQS.

The Department conducted ozone monitoring in Billings from July 1978 to August 1980 at the Central Park monitoring site (30-111-0059). A couple hourly concentrations exceeded the MAAQS, but none exceeded the NAAQS.

The Department conducted ozone monitoring in Billings in the city center from January 1988 to September 1989 at the Scottish Rites monitoring site (30-111-0073). Ozone data collected at the Scottish Rites site showed higher concentrations in the summer months, but all were within the NAAQS. One hourly concentration exceeded the MAAQS. The Scottish Rites site (which also monitored for SO_2) was discontinued in September 1989 because the ozone readings were low. Since the Scottish Rites site was discontinued, the Department has not conducted ozone monitoring. If resources become available, the Department would like to conduct ozone monitoring east of Billings.

2.6.2 AQCR 141 - CENTRAL MONTANA

2.6.2.1 CASCADE COUNTY

Montana Power Company conducted ozone monitoring in Great Falls from June 1980 to October 1981. The site (30-013-0302) was located just north of Great Falls and one mile west of Belt Creek. Three hourly concentrations exceeded the NAAQS.

2.6.3 AQCR 142 - SOUTHWESTERN MONTANA

2.6.3.1 SILVER BOW COUNTY

The Department conducted ozone monitoring in Butte at the Alpine West monitoring site (30-093-0015) during the summer and fall 1977. Many exceedances of the NAAQS (one-hour concentrations) were recorded.

The Department conducted ozone monitoring in Butte at the Hebgen Park #2 monitoring site (30-093-0018) from May 1978, to April 1981. No exceedances of the MAAQS or NAAQS were recorded.

2.6.4 AQCR 143 - EASTERN MONTANA COUNTY

2.6.4.1 ROSEBUD COUNTY

The Department conducted ozone monitoring in Colstrip at the BN monitoring site (30-087-0027) from 1975 through 1977. Also, the Department conducted ozone monitoring in Colstrip at the McRae monitoring site (30-087-0028) in 1974 and 1975. Many exceedances of the NAAQS (one-hour concentrations) were recorded at the BN site, while no exceedances of the NAAQS or MAAQS were recorded at the McRae monitor.

2.6.5 AQCR 144 - NORTHWESTERN MONTANA

2.6.5.1 FLATHEAD COUNTY

The National Park Service is conducting non-EPA Federal ozone monitoring in Glacier National Park (30-029-8001). Ozone monitoring was from April 1989 to December 1992 and March 1995 to the present. No exceedances of the MAAQS or NAAQS have been recorded.

2.6.5.2 MISSOULA COUNTY

The Department conducted ozone monitoring in Missoula at the Lions Park monitoring site (30-063-0019) in 1978 and 1979. No exceedances of the MAAQS or NAAQS were recorded. If resources become available the Department would like to establish ozone monitoring in the Missoula area.

2.7 METEOROLOGICAL MONITORING AREAS

2.7.1 AQCR 140 - SOUTH CENTRAL MONTANA

AQCR 140 is located in south central Montana and includes physical features common to all of the other AQCRs in the State. The Yellowstone and Musselshell Rivers cut through the region from west to east and the Missouri River forms the northern border. The Highwood, Big Belt, Crazy, and Absaroka Mountains border the region to the west. The southern border of the region includes the Beartooth, Pryor, and Big Horn Mountains. To the east the boundary cuts through rolling plains and foothills, and includes the lower portion of the Musselshell River.

Due to the diverse nature of the terrain and climate in this region, dispersion characteristics are variable. Mountainous terrain can provide shelter from prevailing winds and severely limit dispersion of pollutants in one area while funneling high winds into another to greatly enhance the dispersion. Temperature inversions, which trap pollutants, are common in this region throughout the year, but the depth, duration and intensity vary widely from the mountains to the plains. Inversions on the plains seldom persist past noon, and are usually shallow and weak. Inversions in the mountainous areas are usually much stronger and deeper, and can persist for several days during the fall and winter. Low-level wind speed and direction patterns in the mountains are affected by terrain and generalizations or comparisons to any existing measurements at other sites are not very practical. Wind patterns on the flatter portion of the region can be evaluated by comparison to existing sites and generally show the prevailing winds to be from the west and southwest.

2.7.1.1 YELLOWSTONE COUNTY

Meteorological monitoring in Yellowstone County consists of two sites operated by the Department, one site operated by the Yellowstone County Air Pollution Control (YCAPC), two sites operated by Yellowstone Generation Inc. (YGI), and three sites operated by a group of Billings/Laurel industries (BLAQTC).

As stated previously, Billings and Laurel are situated along the Yellowstone River Valley in south central Montana. The Yellowstone River Valley runs from southwest to northeast and is a predominant topographical influence on the airflow in the area. In Billings, there are cliffs or rimrocks located both north and south of the river, which also tend to cause channeling. The distance between the north and south rims of the cliffs range from about one to five miles. In Laurel, the valley tends to be a little wider and the predominant high terrain is not close by. The cities of Billings and Laurel and all of the industrial sources are located along the river valley. Nearby terrain is often higher than the highest smokestacks.

The Department operates a 10-meter meteorological (met) tower at Coburn Road (30-111-0066). Temperature data (two meter probe height) is also collected at the site. The Coburn Road site is situated about 300 feet above the valley floor on the south rims. The wind data is used to determine which source or sources contributed to SO_2 readings at the site. The wind data was also used in connection with the area wide SO_2 dispersion modeling study.

The YCAPC operates a met sensor at the Bridal Shop CO site (30-111-0082). The met sensor is on a six-foot tripod on top of the monitoring shelter. The site does not meet siting criteria for probe height, but the met data is used for reviewing the meteorological conditions contributing to high CO readings.

BLAQTC operates meteorological systems at its three SO_2 sites in Billings and Laurel. These sites are Brickyard Lane (30-111-2005), Laurel Farm (30-111-0016) and Lockwood Park (30-111-1065). All meteorological equipment is located on 10-meter towers. Analog signals are recorded on chart with the digital signal being stored on magnetic disk. The wind data is used to determine which source or sources contribute to SO_2 readings at the site. The wind data was used in the area wide SO_2 dispersion modeling study.

YGI operates meteorological systems at both of its SO_2 sites in Billings. These sites are Johnson Lane (30-111-2006) and Pine Hills (30-111-2007). All meteorological equipment is located on 10-meter towers. Analog signals are recorded on chart with the digital signal being stored on magnetic disk. The wind data is used to determine which source or sources contributed to SO_2 readings at the site.

2.7.2 AQCR 141 - CENTRAL MONTANA

AQCR 141, located in north central Montana, is a region of rolling glaciated plains. The Marias, Milk, Missouri, and Teton Rivers cut across the region from the west to east creating substantial river valleys that are hundreds of feet lower than the upland bench areas. Relatively small, isolated mountain ranges, the Bear

Paw, Highwood, and Little Rocky Mountains, rise up from the plains in the eastern half of the region. The western boundary of the region is formed by the Continental Divide and includes most of the area known as the Rocky Mountain Front. The foothills of the Big and Little Belt Mountains form the southern boundary along with the Missouri River. The eastern boundary cuts across the plains north of the Little Rocky Mountains to the Canadian border, which is the northern boundary of the region.

With the exception of the isolated mountainous areas most of the region experiences a similar climatological regime with warm dry summers and cold dry winters interrupted by occasional chinooks. Dispersion potential in the region is generally excellent due to persistent and often very strong winds. Temperature inversions in the area, though frequent, are usually shallow and seldom last past noon. The exceptions to this rule are to be found in the mountainous areas and occasionally in the river valleys. During the winter it is possible to have a warm wind blowing along a bench while cold air remains trapped in the bottom of a valley only a few miles away. Persistent inversions have also been noted in the narrow valleys of the Little Rocky Mountains. The wind flow over the region is generally from the west or southwest unless cold northerly winds are sweeping down from the arctic. Precipitation amounts are uniformly low over the entire region.

2.7.2.1 CASCADE COUNTY

Meteorological monitoring in Cascade County consists of the Race Track site (30-013-2001) located east of the Montana Refining facility in Great Falls. The Race Track site met sensors are on a 10-meter tower. The wind data analog signal is digitized and stored on magnetic media. The met data is used to review the meteorological conditions contributing to high SO_2 readings.

Meteorological monitoring is conducted at the Overlook Park site using a sonic anemometer on the shelter roof. The data is not of modeling quality, but it is useful at the microscale CO site.

2.7.3 AQCR 142 - SOUTHWESTERN MONTANA

AQCR 142 is located in the southwestern corner of Montana. The region contains several distinct mountain ranges separated by wide valleys. The valleys run north and south and can be thousands of feet lower than the surrounding mountains. Tributaries for the Clark Fork, Missouri, and Yellowstone Rivers have their headwaters in this area.

The mountainous terrain in the region substantially impacts the weather patterns. Precipitation is often limited to the higher mountains while the valleys remain arid and relatively dry. Winds along the mountaintops are generally westerly and frequently will not reach down into the north-south running valleys. Inversions are frequent and during the fall and winter can persist for days at a time. Occasional severe inversions can be several thousands of feet deep and very strong allowing almost no dispersion of pollutants. This allows even small emission sources to produce localized areas of poor air quality.

2.7.3.1 GALLATIN COUNTY

Meteorological monitoring in Gallatin County consists of a Climatronics sonic wind system at the West Yellowstone CO station located at the entrance to Yellowstone National Park. The wind system is mounted on a six foot tripod on top of the monitoring shelter. Collected data is not used for regulatory modeling, as it does not meet siting requirements. However, the meteorological data is used to review atmospheric conditions that prevail during elevated CO concentrations recorded at the site.

2.7.4 AQCR 143 - EASTERN MONTANA

AQCR 143 is basically the eastern third of Montana. Rolling glaciated plains cover the northern half of the region while rolling sedimentary plains cover the southern half. The Missouri River cuts from west to east in a deep valley in the glaciated northern half of the region while the Yellowstone River travels to the northeast in a wide, but shallow valley through the southern half. The terrain is often quite rough, but generally does not produce noticeable terrain effects on the meteorology and climatology of this region.

The weather is typical of the northern Great Plains with hot dry summers and cold dry winters. Chinooks occur, but are not as frequent as they are in AQCR 141. Precipitation totals are generally low throughout the region with thunderstorms producing a significant amount of the total precipitation. The wind patterns here can be characterized by existing off-site measurements and are usually westerly. Dispersion in this region is excellent as a rule. Shallow and short-lived inversions are frequent especially in the southern part of the region.

2.7.5 AQCR 144 - NORTHWESTERN MONTANA

AQCR 144 makes up the northwestern corner of Montana and is entirely west of the Continental Divide. The terrain here is uniformly mountainous, as is AQCR 142, but the valleys are generally narrower and lower than the valleys within AQCR 142. The mountain ranges and valleys also run from the north to the south with the mountaintops thousands of feet higher than the valley floors. The area is drained by the Clark Fork and Kootenai Rivers and includes all of the Flathead and Bitterroot drainage.

The strong pacific influence and mountainous terrain in the region substantially impact the weather. Precipitation amounts here are the highest in the State and the winters are also warmer and wetter. Winds along the mountaintops are generally westerly and frequently will not reach down into the north-south valleys. Inversions are frequent, and during the fall and winter can persist for many days. Warm Pacific air frequently overrides colder air trapped in the valleys producing severe inversions several thousands of feet deep causing poor pollutant dispersion. This allows small emission sources to produce localized areas of poor air quality because dispersion potential in this region is the lowest in the State.

2.7.5.1 MISSOULA COUNTY

Meteorological monitoring in Missoula was conducted at the Missoula City-County Health Department's CO site at Malfunction Junction (30-063-0005). The meteorological sensors were on a six-foot tripod on top of the monitoring shelter.

Due to the multiple use conditions at the fairgrounds (where the site was located) and safety reasons, it was impossible to install and guy a 10-meter tower at this site. The Department and Missoula County decided to stop met data collection on April 1, 1993, since the data collected with the tripod could not be used for dispersion modeling purposes. The absence of met data at the Malfunction Junction site is not a serious problem since nearly all of the CO NAAQS exceedances in Missoula have occurred under stagnant air conditions.

As part of the hydrogen sulfide (H_2S) at Smurfit-Stone Container meteorological data is collected at the Moccasin Lane site, Stone Container #1A (30-063-0034). The meteorological site utilizes a 10-meter tower and meets all EPA siting requirements.

2.7.5.2 FLATHEAD COUNTY

Meteorological monitoring in Kalispell is conducted at the Shopko CO site (30-029-0048). The meteorological sensors are on a six-foot tripod on top of the monitoring shelter. Data collection began April 1, 2000. Meteorological monitoring is being conducted to provide local met data to characterize the prevailing meteorological conditions during high carbon monoxide concentration episodes.

3.0 NETWORK MODIFICATIONS

As stated in the introduction, the Department must conduct a review to (1) determine if the system (monitoring network) meets the monitoring objectives defined in Appendix D of CFR Part 58, and (2) identify needed modifications of the network, such as the termination or relocation of unnecessary stations or the establishment of new stations which are necessary.

The Department is also required to develop and implement an annual schedule modifying the network in order to eliminate any unnecessary stations or to correct any inadequacies indicated by the results of the annual review. The Department must consult with the Regional Administrator of EPA during the development of the schedule to modify the monitoring program. The final schedule and modifications are subject to the approval of the Regional Administrator.

The regional office of the EPA (Region VIII) established a form and a procedure for documenting and requesting modifications to the network. This form is known as the Network Modification Request Form. The State is required to submit this form in advance requesting EPA approval of any proposed network modification.

Proposed (and accomplished) network modifications for Fiscal Years 2004 and 2005 (FY04-FY05) are listed in Table 8, of Appendix A. Network modifications proposed for Fiscal Year 2006 (FY06) are listed in Table 9, of Appendix A.

4.0 AIR MONITORING EQUIPMENT STATUS

The Department operates various types of equipment to measure pollutants and meteorological parameters at monitoring sites across Montana. The Department also uses shelters, calibrators, other equipment, and devices in support of that monitoring. As the equipment becomes old, it often needs to be upgraded or replaced. When the Department adds sites to its network, new equipment must be purchased. Each year the Department earmarks money to purchase new and replacement equipment.

During Fiscal Years 2004 and 2005 the Department purchased several pieces of equipment. These are listed in Table 5 of Appendix A. In this two year period, the Department spent a total of $189,800 on major air monitoring equipment purchases.

In Fiscal Year 2006 (FY06) the Department intends to spend approximately $125,000 for new or replacement equipment (dependant on funding). Table 6 of Appendix A contains a list of the proposed purchases.

Table 7 of Appendix A, is a list of the age of air monitoring equipment that is currently used at State and county operated sites, or will be used at proposed sites. This table also includes equipment used or needed for special projects.

The Department remains committed to upgrading its system, maintaining a high level of equipment dependability, and achieving a high level of data quality and quantity (percent data recovery) by using the best available equipment.

5.0 SUMMARY

5.1 CURRENT NETWORK SUMMARY

Each year the Department is required to develop and implement an annual schedule modifying its air monitoring network in order to eliminate any unnecessary stations or to correct any inadequacies indicated by the results of the annual review. The Department must consult with the Regional Administrator of EPA during the development of the schedule to modify the monitoring program. The final schedule and modifications are subject to the approval of the Regional Administrator.

Table 1 of Appendix A provides a narrative of any changes or modifications to air monitoring stations operated by State and county governments that occurred during Fiscal Years 2004-2005 or are proposed for Fiscal Year 2006. Table 2 of Appendix A provides a listing of current air monitoring stations operated by State and county governments. There are also several sites in these tables that are operated by industry. Company monitors listed in this report are those that reflect significant population exposure.

At the time of this network review, the Department, county agencies, and industrial concerns operated 33 air monitoring stations. Some of the stations collected multiple parameters. There were 16 PM_{10}, 13 $PM_{2.5}$, 8 CO, and 7 SO_2 sites as found in Table 2 of Appendix A.

5.1.1 NETWORK MODIFICATIONS FOR FISCAL YEARS 2004 and 2005

For Fiscal Years 2004 and 2005, the Department listed 8 modifications to the network as outlined in Table 11 of Appendix A. A status statement is written below each of the items in the table. We did not perform the hoped for CO saturation study in Helena.

5.1.2 NETWORK MODIFICATION GOALS FOR FISCAL YEAR 2006

Table 9 of Appendix A lists the network modification goals for Fiscal Year 2006. The items on this list detail the proposed modifications to the network.

5.2 HISTORICAL MONITORING NETWORK SUMMARY

Appendix C contains a complete listing of all the official sites (e.g. data entry to AIRS-AQS) with the monitored parameters that have been established in Montana. The list includes industrial and State sites with the start-up and closing dates. The table is complete through the end of 2004.

APPENDIX A - TABLES FOR NETWORK REVIEW

Table 1 MONTANA AMBIENT AIR MONITORING NETWORK RECENT (FY04-05) AND PROPOSED (FY06) MODIFICATIONS WITH LIST OF PARAMETERS

Table 2 EXISTING MONTANA AMBIENT AIR MONITORING NETWORK WITH LIST OF PARAMETERS

Table 3 2005 PM$_{10}$ SAMPLIING FREQUENCY WAIVER REQUEST

Table 4 PM$_{10}$ NETWORK SAMPLING FREQUENCY

Table 5 MONTANA MAJOR EQUIPMENT PURCHASES FOR FY04-05

Table 6 MONTANA MAJOR PLANNED EQUIPEMENT PURCHASES FOR FY06

Table 7 AGE OF EQUIPMENT

Table 8 MONTANA NETWORK MODIFICATIONS FOR FY04-05

Table 9 MONTANA NETWORK MODIFICATION GOALS FOR FY06

TABLE 1

MONTANA AMBIENT AIR MONITORING NETWORK RECENT AND PROPOSED (FY06) MODIFICATIONS WITH LIST OF PARAMETERS

AIRS Number	Site Name/Address City/County	Parameter	Years Operated	Station Type	Spatial Scale	Monitoring Objective*
30-029-0010	**Moose's** **Kalispell/Flathead**	**CO**	**03-**	**SLAMS**	**Micro.**	**H,P,S**
	This CO site is located near the intersection of U.S. Highway 93 and U.S. Highway 2 (Idaho Ave & Main St). Valid data collection began in October 2003. Two exceedances (8-hr NAAQS) were recorded in January 1996 very near this site. In an effort to expedite traffic movement and reduce emissions, the intersection has been reconstructed. The old site was terminated to make way for the construction. This new site also has a meteorological monitoring system consisting of wind speed, wind direction, and standard deviation of wind direction.					
30-029-0048	**Shopko** **Kalispell/Flathead**	**CO**	**00-03**	**SPM**	**Micro.**	**H,P,S**
	The Shopko site was established in April 2000 near the intersection of Idaho and Lasalle. It is about 100 yards west of the intersection in front of the Shopko store. It was anticipated to be one of the worst CO locations in Kalispell. Three winters of operation did not reveal a problem, so the equipment will be returned to Idaho and Main.					
30-031-0013	**West Entrance – Park**	**CO**	**98-**	**SPM**	**Micro.**	**H,S**
	West Yellowstone/Gallatin	**$PM_{2.5}$**	**03-**	**SPM**	**Micro.**	**HS**
	This site was established in 1998 to monitor the impact of snowmobiles at the park entrance. Dispersion is poor, and the prospect of a CO exceedance seemed likely. Fine particulate monitoring was added for the winter of 2003. The site will remain until at least 2006 to assess the effect of the Park's winter use plan.					

*** H=high concentration, P=high population, S=source impact, B=background**

TABLE 1 (continued)

MONTANA AMBIENT AIR MONITORING NETWORK RECENT AND PROPOSED (FY06) MODIFICATIONS WITH LIST OF PARAMETERS

AIRS Number	Site Name/Address City/County	Parameter	Years Operated	Station Type	Spatial Scale	Monitoring Objective*
	* H=high concentration, P=high population, S=source impact, B=background					
30-049-0019	**Parker Clinic** **Lincoln/Lewis & Clark**	**PM$_{2.5}$**	**03-05**	**SLAMS**	**Neigh.**	**H,P**
	This site revealed surprisingly low particulate levels compared to the old 1st Bank site 1-2 miles to the East.					
30-049-00XX	**East Lincoln** **Lincoln/Lewis & Clark**	**PM$_{2.5}$**	**05-**	**SLAMS**	**Neigh.**	**P**
	This site will be selected to improve our understanding of fine particulate distribution in Lincoln. The community is heavily forested with tall Pine trees providing a dense overhead canopy. Old measurements under the canopy were quite high. Measurements just West of the canopy were much lower.					
30-053-0018	**Courthouse Annex** **Libby/Lincoln**	**PM$_{2.5}$**	**04-**	**SLAMS**	**Neigh.**	**H,P**
	Libby was declared non-attainment for the PM$_{2.5}$ NAAQS in 2004. This was as a result of high winter particulate levels caused by wood burning. Continuous PM$_{2.5}$ monitoring was added to the site early in the winter of 2005 to improve tracking of the effects of corrective measures as they were undertaken. The Libby site has filter based and continuous monitoring for both PM$_{10}$ and PM$_{2.5}$, as well as PM$_{2.5}$ speciation.					
30-063-0012	**Lion's Park** **Milltown/Missoula**	**PM$_{2.5}$**	**02-05**	**SPM**	**Neigh.**	**P**
	This site was installed to monitor fine particulate on the up-slope side of Hell Gate from Missoula. The results were surprisingly close to levels measured at the Health Department Site in Missoula, so the site was terminated and the equipment moved to Seeley Lake.					

30-063-0021	Seeley Lake	PM_{10}	04-	SPM	Neigh.	P
	Seeley Lake/Missoula	$PM_{2.5}$	04-	SPM	Neigh.	P

This site was installed to investigate the effects of wood burning and road dust in the community. It was designed to be “worst case”.

30-081-0007	PS 46	$PM_{2.5}$	05-	SLAMS	Neigh.	P
	Hamilton/Ravalli					

This site will replace the old Courthouse site. The objective is to monitor fine particulate continuously making data available more quickly. Continuous monitoring would have been difficult at the Courthouse site.

30-081-0001	Hamilton Courthouse	PM10	99-05	SLAMS	Neigh.	P
	Hamilton/Ravalli	PM2.5	00-05	SLAMS	Neigh.	P

PM_{10} values have declined to well below the NAAQS. $PM_{2.5}$ from winter wood burning and summer wild fires is the principle concern. This site is being replace with one that will better accommodate continuous monitoring.

30-111-0082	Bridal Shop	CO	97-04	SPM	Micro.	H,P,S
	Billings/Yellowstone	SO_2	01-04	SPM	Neigh.	H,P

Changes in land ownership forced DEQ to terminate this downtown Billings monitoring site.

30-111-0085	St. Luke’s	CO	04-	SLAMS	Micro.	H,P,S
	Billings/Yellowstone					

This downtown Billings site replaces the old Bridal Shop Site located about three blocks Northwest. SO_2 monitoring was discontinued because of the very low results.

30-111-0084	Beartooth School	SO_2	03	SPM	Neigh.	H,P,S
	Billings/Yellowstone					

TABLE 1 (continued)

MONTANA AMBIENT AIR MONITORING NETWORK RECENT AND PROPOSED (FY06) MODIFICATIONS WITH LIST OF PARAMETERS

AIRS Number	Site Name/Address City/County	Parameter	Years Operated	Station Type	Spatial Scale	Monitoring Objective*
	This new site was established in the "heights" to evaluate pollutant impact from the refineries lower in the valley.					
30-111-0012	**North Park School** **Billings/Yellowstone**	**PM_{10}**	**04-**	**SPM**	**Middle**	**H,P,S**
	This site is on the grounds of a 'head start' school. It was created to monitor the impact of an industrial sandblasting operation less than a quarter of a mile up the street.					
30-111-0086	**Shepherd-Bus Barn** **Shepherd/Yellowstone**	**NO-NOx** **O_3**	**05-** **05-**	**SLAMS**	**Urban**	**H,S**
	This is the first effort in many years to measure ozone in Montana. The site was selected as the location likely to have the highest ozone values in Montana.					
30-111-1079	**Mount Olive** **Billings/Yellowstone**	**CO** **SO_2**	**01-04** **01-04**	**SLAMS** **SLAMS**	**Micro.** **Neigh.**	**H,P,S** **H,P**
	This site previously closed in 1997, was reopened in response to continued growth on the west side of Billings. It monitored CO at what is probably the busiest intersection in the city and provided an indication of SO_2 exposure on the west side of the city. Results indicated that SO_2 was negligible and that CO had declined to half of what it had been in 1997, so the site was closed in 2004.					

*** H=high concentration, P=high population, S=source impact, B=background**

TABLE 2

EXISTING MONTANA AMBIENT AIR MONITORING NETWORK WITH LIST OF PARAMETERS

AIRS Number	Site Name/Address City/County	Parameter**	Years Operated	Station Type	Spatial Scale	Monitoring Objective*
30-003-0011	Decker Coal #1 Decker/Big Horn	PM_{10}	98-	INDUST	Neigh.	S
30-003-0014	Decker Coal #4 Decker/Big Horn	PM_{10}	98-	INDUST	Neigh.	S
30-003-0017	Decker Coal #7 Decker/Big Horn	PM_{10}	98-	INDUST	Neigh.	S
30-003-0018	Spring Creek Coal #1 Decker/Big Horn	PM_{10}	92-	INDUST	Neigh.	S
30-003-0019	Spring Creek Coal #2 Decker/Big Horn	PM_{10}	92-	INDUST	Neigh.	S
30-003-0023	Decker Coal-North Pit Decker/Big Horn	PM_{10}	01-	INDUST	Neigh.	S
30-003-0026	Decker Coal-NW or Office Decker/Big Horn	PM_{10}	02-	INDUST	Neigh.	S
30-013-0001	Overlook Park Great Falls/Cascade	CO	01-	SLAMS	Micro.	H,P,S
30-013-1026	Great Falls High School Great Falls/Cascade	$PM_{2.5}$ (FRM)	00-	SLAMS	Neigh.	H,P
30-029-0009	Dead End Whitefish/Flathead	PM_{10} (FRM) $PM_{2.5}$ (FRM)	01- 01-	SLAMS SLAMS	Neigh. Neigh.	H,P H,

* H=high concentration, P=high population, S=source impact, B=background

** FRM=Federal Reference Method, CONT=Continuous

TABLE 2 (continued)

EXISTING MONTANA AMBIENT AIR MONITORING NETWORK WITH LIST OF PARAMETERS

*H=high concentration, P=high population, S=source impact, B=background

** FRM=Federal Reference Method, CONT=Continuous

AIRS Number	Site Name/Address City/County	Parameter**	Years Operated	Station Type	Spatial Scale	Monitoring Objective*
30-029-0007	Ball Park Columbia Falls/Flathead	PM_{10} (FRM)	01-	SLAMS	Neigh.	H,P,S
30-029-0047	Flathead Electric Kalispell/Flathead	CO	99-	SPM	Neigh.	P
		PM_{10} (CONT)	99-	SLAMS	Neigh.	H,P
		$PM_{2.5}$ (FRM)	99-	SLAMS	Neigh.	H,P
30-029-0010	Moose's Kalispell/Flathead	CO	03-	SLAMS	Micro.	H,P,S
30-029-0707	Columbia Falls Aluminum-Doane Columbia Falls/Flathead	Fluoride in Forage	82-	INDUST	Neigh.	S
30-029-0708	Columbia Falls Aluminum-Hoffman Columbia Falls/Flathead	Fluoride in Forage	82-	INDUST	Neigh.	S
30-029-0710	C. Falls Aluminum-New Liddle Columbia Falls/Flathead	Fluoride in Forage	91-	INDUST	Neigh.	S
30-031-0008	Belgrade ConAgra Belgrade/Gallatin	PM_{10} (FRM)	91-	SLAMS	Neigh.	H,P
		$PM_{2.5}$ (FRM)	00-	SPM	Neigh.	H,P
30-031-0012	Firehole West Yellowstone/Gallatin	PM_{10} (FRM)	95-	SPM	Neigh.	H,P
30-031-0013	West Entrance – Park West Yellowstone/Gallatin	CO	98-	SPM	Micro.	H,S
		$PM_{2.5}$ (FRM)	03-	SPM	Micro.	H,S
		$PM_{2.5}$ (CONT)	03-	SPM	Micro.	H,S

30-049-0018	Lincoln School	PM_{10} (FRM)	89-	SLAMS	Neigh.	H,P
	Helena/Lewis & Clark	PM_{10} (CONT)	94-	SLAMS	Neigh.	H,P
		$PM_{2.5}$ (FRM)	99-	SLAMS	Neigh.	H,P
30-049-0026	Rossiter Pump House	PM_{10} (FRM)	96-	SLAMS	Neigh.	P
	Helena/Lewis & Clark					
30-053-0018	Courthouse Annex	PM_{10} (CONT)	93-	SLAMS	Neigh.	H,P
	Libby/Lincoln	PM_{10} (FRM)	03-	SLAMS	Neigh.	H,P
		$PM_{2.5}$ (FRM)	99-	SLAMS	Neigh.	H,P
		$PM_{2.5}$ (CONT)	05-	SLAMS	Neigh.	H,P
30-063-0005	Malfunction Junction	CO	79-	SLAMS	Neigh.	H,P,S
	Missoula/Missoula					
30-063-0021	Seeley Lake	PM_{10} (FRM)	04-	SPM	Middle	H,P,S
	Seeley Lake/Missoula	$PM_{2.5}$ (FRM)	04-	SPM	Neigh.	H,P,S
30-063-0016	Stone #2-Well Field	PM_{10} (FRM)	92-	INDUSTRIAL	Neigh.	S
	Missoula/Missoula	H_2S	81-			
30-063-0024	Boyd Park	PM_{10} (FRM)	84-	SLAMS	Neigh.	H,P
	Missoula/Missoula					
30-063-0031	Health Department Roof	PM_{10} (CONT)	86-	SLAMS	Neigh.	H,P
	Missoula/Missoula	$PM_{2.5}$ (FRM)	99-	SLAMS	Neigh.	H,P
30-063-0034	Stone #1A-Moccasin Lane	PM_{10} (FRM)	92-	INDUSTRIAL	Neigh.	S
	Missoula/Missoula	H_2S	87-			
30-081-0001	Hamilton Courthouse	PM_{10} (FRM)	99-	SLAMS	Neigh.	H,P
	Hamilton/Ravalli	$PM_{2.5}$ (FRM)	00-	SLAMS	Neigh.	H,P
30-089-0007	Thompson Falls High School	PM_{10} (FRM)	99-	SLAMS	Neigh.	H,P
	Thompson Falls/Sanders	$PM_{2.5}$ (FRM)	00-	SLAMS	Neigh.	H,P

TABLE 2 (continued)

EXISTING MONTANA AMBIENT AIR MONITORING NETWORK WITH LIST OF PARAMETERS

AIRS Number	Site Name/Address City/County	Parameter**	Years Operated	Station Type	Spatial Scale	Monitoring Objective*
30-093-0005	Greeley School Butte/Silver Bow	PM_{10} (CONT) $PM_{2.5}$ (FRM)	85- 99-	SLAMS SLAMS	Neigh. Neigh.	H,P,S H,P
30-093-0053	Storm Sewer Butte/Silver Bow	CO	98-	SPM	Micro.	H,P,S
30-097-0002	Stillwater Mine Nye/Sweet Grass	PM_{10}	01-	INDUST	Neigh.	S
30-097-004	Stillwater Mine Nye/Sweet Grass	PM_{10}	01-	INDUST	Neigh.	S
30-111-0012	North Park School Billings/Yellowstone	PM_{10} (FRM)	04-	SPM	Middle	H,P,S
30-111-0016	Laurel Farm Laurel/Yellowstone	SO_2	87-	INDUSTRIAL	Neigh.	H,S
30-111-0066	Coburn Road Billings/Yellowstone	SO_2	81-	SLAMS	Neigh.	H,S
30-111-0084	Beartooth School Billings/Yellowstone	SO_2	03-	SLAMS	Neigh.	H,P,S
30-111-0085	St. Luke's Billings/Yellowstone	CO	04-	SLAMS	Micro.	H,P,S

*H=high concentration, P=high population, S=source impact, B=background

** FRM=Federal Reference Method, CONT=Continuous

30-111-0086	Shepherd-Bus Barn	NO-NOx	05-	SLAMS	Urban	H,S
	Shepherd/Yellowstone	Ozone	05-	SLAMS	Urban	H,S
30-111-1065	Lockwood Park	SO_2	87-	INDUST	Neigh.	H,P,S
	Billings/Yellowstone	PM_{10} (FRM)	96-	SPM	Neigh.	H,P
		$PM_{2.5}$ (FRM)	99-	SLAMS	Neigh.	H,P
30-111-2005	Brickyard Lane Billings/Yellowstone	SO_2	89-	INDUSTRIAL	Neigh.	H,P,S
30-111-2006	Johnson Lane Billings/Yellowstone	SO_2	93-	INDUSTRIAL	Neigh.	H,P,S
30-111-2007	Pine Hills Billings/Yellowstone	SO_2	93-	INDUSTRIAL	Neigh.	H,P,S

TABLE 3

2004 PM_{10} SAMPLING FREQUENCY WAIVER STATISTICS

AIRS Number	Site Name/Address City/County Station Type	Sample Year	# Of Valid Samples	99% Number	99% (ug/M3)	Mean	Standard Deviation	*t – stat* Value
30-031-0008	Belgrade ConAgra	2002	81	81	53			
	Belgrade/Gallatin	2003	84	84	66			
	SLAMS	2004	79	79	45	54	10.60	-9.47
30-031-0012	Firehole	2002	74	74	38			
	West Yellowstone/Gallatin	2003	89	89	68			
	SPM	2004	89	89	37	48	17.62	-6.093
30-049-0026	Helena - Rossiter Pump House	[1]2002	57	57	41			
	Helena/Lewis & Clark	2003	52	52	98			
	SLAMS	2004	59	59	69	69	28.50	-3.006
30-063-0024	Boyd Park	2002	44	44	44			
	Missoula/Missoula	2003	57	57	109			
	SLAMS	2004	55	55	86	80	32.96	-2.286
30-081-0001	Hamilton County Courthouse	2002	89	89	85			
	Hamilton/Ravalli	2003	96	96	97			
	SLAMS	2004	88	88	103	95	9.165	-6.547
30-089-0007	Thompson Falls High School	2002	89	89	69			
	Thompson Falls/Sanders	2003	82	82	48			
	SLAMS	2004	86	86	32	50	18.56	-5.676
30-111-1065	Lockwood Park	2002	57	57	27			
	Billings/Yellowstone	2003	61	61	54			
	SPM	2004	61	61	39	40	13.53	-8.501

[1] Data from old site on School House roof.

TABLE 4
PM_{10} NETWORK SAMPLING FREQUENCIES

AIRS Number	Site Name/Address City/County Station Type/Parameter	Current		Proposed	
		$1^{ST}/4^{TH}$ Quarters	$2^{nd}/3^{rd}$ Quarters	$1^{ST}/4^{TH}$ Quarters	$2^{nd}/3^{rd}$ Quarters
30-029-0007	Ball Park Columbia Falls/Flathead **SLAMS / PM_{10}**	1-in-3		No Change	
30-029-0009	Dead End Whitefish/Flathead **SLAMS / PM_{10}**	Continuous-BAM		No Change	
30-029-0047	Flathead Electric Coop. Kalispell/Flathead **SLAMS / PM_{10}**	Continuous-BAM		No Change	
30-031-0012	Firehole West Yellowstone/Gallatin **SPM / PM_{10}**	1-in-3	1-in-6	No Change	
30-049-0018	Lincoln School Helena/Lewis & Clark **SLAMS / PM_{10}**	Continuous-TEOM (Replace with BAM) and 1-in-6		No Change	
30-049-0026	Helena – Rossiter Pump House Helena/Lewis & Clark **SLAMS / PM_{10}**	1-in-6 Began sampling 1/3/03		1-in-6	
30-053-0018	Courthouse Annex Libby/Lincoln **SLAMS / PM_{10}**	Continuous-BAM and 1-in-6		No Change	

TABLE 4 (Continued)

PM_{10} NETWORK SAMPLING FREQUENCIES

AIRS Number	Site Name/Address City/County Station Type/Parameter	Current		Proposed	
		$1^{ST}/4^{TH}$ Quarters	$2^{nd}/3^{rd}$ Quarters	$1^{ST}/4^{TH}$ Quarters	$2^{nd}/3^{rd}$ Quarters
30-063-0021	Seeley Lake Seeley Lake/Missoula **SPM / PM_{10}**	1-in-3		No Change	
30-063-0024	Boyd Park Missoula/Missoula **SLAMS / PM_{10}**	1-in-6		No Change	
30-063-0031	Health Department Roof Missoula/Missoula **SPM / PM_{10}**	Continuous-TEOM		No Change	
30-081-0001	Hamilton County Courthouse Hamilton/Ravalli **SLAMS / PM_{10}**	1-in-3	1-in-6	Discontinue PM_{10}	
30-089-0007	Thompson Falls High School Thompson Falls/Sanders **SLAMS / PM_{10}**	1-in-3	1-in-6	No Change	
30-093-0005	Greeley School Butte/Silver Bow **SLAMS / PM_{10}**	Continuous-BAM		No Change	
30-111-0012	North Park School Billings/Yellowstone **SPM / PM_{10}**	1-in-3		No Change	
30-111-1065	Lockwood Park Billings/Yellowstone **SPM / PM_{10}**	1-in-6		No Change	

TABLE 5

MONTANA MAJOR EQUIPMENT PURCHASES FOR FY04 and FY05

Quantity	Item Description	Each (est)	Total (est)
2	CO Analyzer	9,500	19,000
3	$PM_{2.5}$ Samplers	7,500	22,500
2	NO-NOx Analyzers	10,000	20,000
2	Multi-Channel Strip Chart Recorders	3,500	7,000
1	Ozone Primary Photometer	9,000	9,000
1	Ozone Primary Photometer (used)	3,500	3,500
1	Ozone Analyzer (used)	3,500	3,500
3	Beta Attenuation Monitors	15,000	45,000
4	Dilution Calibrators	8,500	34,000
2	Data Loggers	4,050	8,100
7	Mini-Vol Samplers	2,600	18,200
	Total Equipment Purchases		**$189,800**

TABLE 6

MONTANA MAJOR PLANNED EQUIPMENT PURCHASES FOR FY06

Quantity	Item Description	Each (est)	Total (est)
3	Beta Attenuation Monitors	13,333	40,000
2	Monitoring Shelters	12,500	25,000
2	$PM_{2.5}$ Samplers	8,500	15,000
1	CO Analyzer (low concentration)	11,000	11,000
1	SO_2 Analyzer (low concentration)	11,000	11,000
1	Ozone Analyzer (low concentration)	11,000	11,000
1	NOy Analyzer (low concentration)	12,000	12,000
	Total of Planned Equipment Purchases		**$125,000**

TABLE 7

AGE OF EQUIPMENT

Equipment	Sites	Minimum Number Required	Comments	Year of Purchase '96	'97	'98	'99	'00	'01	'02	'03	'04	'05
CO Analyzers	7	8				2	1		1	2	2	1	1
SO_2 Analyzers	2	3				1	1	1	1	2	2		
NO_2 Analyzers	1	2										2	
Ozone Analyzers	1	2										1	
Ozone Calibrators	1	2	Primary Photometer remains in Lab									1	1
PM_{10} Continuous	8	10							2		2	2	1
PM_{10} Hi-Vol	8	15	Two samplers required at most sites. 3 and 4 required at some collocated sites										
$PM_{2.5}$ Samplers	16	35	Two samplers at 10 sites. Three at two collocated sites. One sampler at two PM_{10} sites.			16	4	7		4	1	3	
Wind Systems	7	8					2		6				
Dilution Calibrators	10	11	Two required for audits.			2		1			1		4
Strip Chart Recorders	15	15			1		3		5			2	

AGE OF EQUIPMENT (continued)

Equipment	Sites	Minimum Number Required	Comments	Year of Purchase ‘96	‘97	‘98	‘99	‘00	‘01	‘02	‘03	‘04	‘05
Dataloggers	16	18					5	6			7		2
Shelters	14	14			1	2							

TABLE 8

MONTANA NETWORK MODIFICATIONS FOR FY04-FY05

Rank	AIRS Number	Site Name/Address City/County	Parameter	******************Comments******************
1.	30-049-0019	Parker Clinic Lincoln/Lewis & Clark	$PM_{2.5}$	Terminate when clinic closes.
	Status:	**Accomplished April 2005**		
2.	30-053-0018	Courthouse Annex Libby/Lincoln	$PM_{2.5}$	Collocate FRM samplers with a continuous BAM to track wood stove replacement program.
	Status:	**Started December 2004-Continues**		
3.	30-111-0012	North Park School Billings/Yellowstone	PM_{10}	Conduct special study to evaluate the effect of sandblasting at Empire Steel on neighborhood.
	Status:	**Started November 2004**		
4.	30-063-0012	Lions Park Milltown/Missoula	$PM_{2.5}$	Terminate Milltown study.
	Status:	**Accomplished July 2004**		

TABLE 9 (continued)

MONTANA NETWORK MODIFICATION GOALS FOR FY04-05

Rank	AIRS Number	Site Name/Address City/County	Parameter	******************Comments******************
5.	30-063-0021	Seeley Lake Seeley Lake/Missoula	$PM_{2.5}$ PM_{10}	Short term study of fine particulate levels in the Seeley Lake area.
	Status:	**Began November 2004**		
6.	30-111-0085	St. Luke's Billings/Yellowstone	CO	Replace Bridal Shop monitoring site.
	Status:	**Accomplished September2004**		
7.	30-111-0086	Shepherd Bus Barn Shepherd/Yellowstone	NOx Ozone	Create a new Billings ozone site.
	Status:	**Accomplished May 2005**		
8.	30-111-1079	Mount Olive Billings/Yellowstone	CO SO_2	Terminate to free shelter for use at ozone site.
	Status:	**Accomplished July 2004**		

TABLE 8

MONTANA NETWORK MODIFICATIONS FOR FY04-05

Rank	AIRS Number	Site Name/Address City/County	Parameter	******************Comments******************
9.	30-031-XXXX	Bozeman Bozeman/Gallatin	$PM_{2.5}$	Find and evaluate a fine particulate site in the Gallatin River Valley closer to Bozeman than the Conagra site.
	Status:	**New site at Wastewater Treatment Plant under construction**		
10.	30-031-0013	West Entrance-Park West Yellowstone/Gallatin	CO $PM_{2.5}$	Identify a community exposure oriented site as a potential replacement for current site.
	Status:	**Remain Committed to Park Entrance for Near Term**		
11.	30-049-XXXX	Helena/Lewis and Clark	CO	Conduct a CO saturation study to identify maximum concentration area and determine need for monitoring.
	Status:	**Not Accomplished Inadequate Resources**		

TABLE 9

MONTANA NETWORK MODIFICATION GOALS FOR FY06

Rank	AIRS Number	Site Name/Address City/County	Parameter	*******************Comments******************
1.	30-081-0007	PS 46 Hamilton/Ravalli	$PM_{2.5}$	Begin continuous $PM_{2.5}$ monitoring for tracking smoke impact.
2.	30-081-0001	Hamilton Courthouse Hamilton/Ravalli	PM_{10} $PM_{2.5}$	Terminate particulate monitoring at Courthouse.
3.	30-093-0005	Greeley School Butte/Silver Bow	$PM_{2.5}$	Begin speciation monitoring to evaluate elemental composition of fine particulate.
4.	30-031-0013	West Entrance-Park West Yellowstone/Gallatin	CO $PM_{2.5}$	Continue monitoring Winter conditions at the park entrance.
5.	30-063-0021	Seeley Lake Seeley Lake/Missoula	$PM_{2.5}$ PM_{10}	Evaluate dust and smoke levels in community.
6.	30-031-XXXX	Belgrade Belgrade/Gallatin	$PM_{2.5}$	Find and evaluate a fine particulate site in the Gallatin River Valley closer to Bozeman than the Conagra site.
7.	30-063-XXXX	Reserve Ave. Missoula/Missoula	CO	Work with Missoula County to conduct a CO saturation study to identify maximum value and location.
8.	30-049-XXXX	Helena/Lewis and Clark	CO	Conduct a CO saturation study to identify maximum concentration area and determine need for monitoring.

APPENDIX B - EMISSION INVENTORY DATA FOR 2004

This appendix presents emission inventory data for the calendar year from the major point sources throughout Montana.

Appendix B - EMISSION INVENTORY DATA FOR 2004

CO=Carbon Monoxide in tons
NO_2=Nitrogen Dioxide in tons
PMT=Total Particulate in tons
PM_{10}=Particulate smaller than 10μ in tons
SO_2=Sulfur Dioxide in tons
VOC=Volatile Organic Carbon in tons

Source Number	Source Name	City	County	CO	NO_2	PM_{10}	PMT	SO_2	VOC
001-0002	BARRETTS MILL	DILLON	BEAVER-HEAD	6	23	22	26	0	1.0
003-0002	ABSALOKA MINE	HARDIN	BIG HORN	270	245	361	801	34	14.7
003-0003	SPRING CREEK MINE	DECKER	BIG HORN	396	309	451	2279	34	17.1
003-0004	DECKER MINE	DECKER	BIG HORN	260	311	436	1718	34	20.1
003-0007	CX24 BATTERY		BIG HORN	12	8	0	0	0	3.9
003-0008	CX25 BATTERY		BIG HORN	11	8	0	0	0	3.8
003-0009	SQUIRREL CREEK		BIG HORN	21	14	0	0	0	7.1
003-0010	STATE LINE BATTERY		BIG HORN	21	14	0	0	0	7.0
003-0011	CX-19 BATTERY		BIG HORN	0	0	0	0	0	0.0
003-0012	SHELL 33 BATTERY		BIG HORN	0	0	0	0	0	0.0
003-0015	CX-35 BATTERY		BIG HORN	11	8	0	0	0	3.8
003-0016	CONNOR 33		BIG HORN	43	29	0	0	0	14.4
003-0017	CX-14 BATTERY		BIG HORN	12	8	0	0	0	3.8
003-0018	ROCKY MOUNTAIN POWER	HARDIN	BIG HORN	0	0	0	0	0	0.0
003-0019	SYMONS CENTRAL COMPRESSOR STATION		BIG HORN	22	10	1	1	0	15.3
003-0021	SEVEN BROTHERS 35 BATTERY COMPRESSOR STATION		BIG HORN	34	22	0	0	0	11.2
003-0022	BITTER CREEK PIPELINES, LLC CONSUL 27 BATTERY		BIG HORN	31	21	0	0	0	10.3
003-0023	VISBORG 25 BATTERY		BIG HORN	31	20	0	0	0	10.2
003-0024	MONTANA STATE 36 BATTERY		BIG HORN	31	20	0	0	0	10.2
003-0026	RANCHOLME 29 BATTERY		BIG HORN	0	0	0	0	0	0.0
003-0027	RANCHOLME 28 BATTERY		BIG HORN	0	0	0	0	0	0.0
005-0001	BLAINE COUNTY #1	CHINOOK	BLAINE	158	1162	6	9	0	49.7
005-0003	BLAINE COUNTY #3	CHINOOK	BLAINE	31	19	0	0	0	9.8
005-0006	COMPRESSOR STATION #103		BLAINE	19	19	0	0	0	16.7
005-0007	LODGE CREEK PIPELINE - BIG SANDY	HAVRE	BLAINE	0	1	0	0	0	3.1
005-0008	LODGE CREEK PIPELINE - BLAINE COUNTY	HAVRE	BLAINE	0	0	0	0	0	0.0
005-0009	BATTLE CREEK COMPRESSOR STATION	HAVRE	BLAINE	6	6	1	1	0	6.6
005-0010	BLAINE COUNTY #4	HAVRE	BLAINE	27	12	1	1	0	11.0
005-0011	LODGE CREEK COMP. STATION		BLAINE	0	1	0	0	0	0.1
005-0013	BLAINE COUNTY #5		BLAINE	5	3	0	0	0	0.8
005-0014	OMIMEX - BATTLE CREEK COMPRESSOR STATION	CHINOOK	BLAINE	12	4	0	0	0	9.4
007-0002	GRAYMONT FACILITY	TOWNSEND	BROAD-WATER	64	244	72	107	82	6.6

Appendix B - EMISSION INVENTORY DATA FOR 2004

CO=Carbon Monoxide in tons
NO$_2$=Nitrogen Dioxide in tons
PMT=Total Particulate in tons
PM$_{10}$=Particulate smaller than 10μ in tons
SO$_2$=Sulfur Dioxide in tons
VOC=Volatile Organic Carbon in tons

Source Number	Source Name	City	County	CO	NO$_2$	PM$_{10}$	PMT	SO$_2$	VOC
007-0006	DIAMOND HILL MINE	TOWNSEND	BROAD-WATER	0	4	1	1	0	0.1
009-0001	MONTANA LIMESTONE CO - MILL	BRIDGER	CARBON	1	0	27	31	0	0.0
009-0002	DRY CREEK FIELD STATION 056	RED LODGE	CARBON	7	27	0	0	0	6.1
009-0003	MONTANA LIMESTONE CO - QUARRY	BRIDGER	CARBON	11	23	21	41	3	1.7
009-0005	HOWELL - ELK BASIN NORTHWEST BATTERY NO. 12	POWELL	CARBON	1	1	0	0	4	8.8
009-0006	HOWELL - ELK BASIN TEN SLEEP BATTERY # 2 & MADISON BATTERY # 9	POWELL	CARBON	5	6	0	0	0	23.6
013-0003	GENERAL MILLS OPERATIONS INC	GREAT FALLS	CASCADE	0	0	1	5	0	0.0
013-0004	MONTANA REFINING	GREAT FALLS	CASCADE	41	190	13	16	782	278.9
013-0009	HARVEST STATES COOPERATIVE ELEVATOR	GREAT FALLS	CASCADE	0	0	0	0	0	0.0
013-0012	WESTFEEDS, INC	GREAT FALLS	CASCADE	0	1	0	4	0	0.0
013-0013	CEREAL FOOD - 013-0013	GREAT FALLS	CASCADE	0	1	31	100	0	0.0
013-0015	LAND O'LAKES/HARVEST STATES FEEDS	GREAT FALLS	CASCADE	0	1	1	8	0	0.1
013-0016	MALMSTROM AFB	GREAT FALLS	CASCADE	18	28	1	2	12	0.5
013-0020	GREAT FALLS REDI MIX		CASCADE	28	10	11	16	5	3.6
013-0021	CASCADE COUNTY ROAD DEPARTMENT	GREAT FALLS	CASCADE	0	0	0	1	0	0.0
013-0022	GREAT FALLS TERMINAL	GREAT FALLS	CASCADE	0	0	0	0	0	115.8
013-0023	MONTANA AIR NATIONAL GUARD	GREAT FALLS	CASCADE	6	4	0	0	0	0.5
013-0024	THOMPSON EXCAVATING - 2903	GREAT FALLS	CASCADE	0	0	0	0	0	0.0
013-0026	AGRI TECHNOLOGY CORP	GREAT FALLS	CASCADE	0	0	0	0	0	0.0
013-0027	MONTANA SPECIALTY MILLS LLC	GREAT FALLS	CASCADE	0	0	37	63	0	0.0
013-0028	THOMPSON EXCAVATING - 2826	GREAT FALLS	CASCADE	0	0	1	2	0	0.0
013-0030	MT WASTE SYSTEMS - HIGH PLAINS LANDFILL	FLOWEREE	CASCADE	0	0	8	28	0	96.6
013-0031	HUMANE SOCIETY OF CASCADE COUNTY	GREAT FALLS	CASCADE	0	0	0	0	0	0.0
013-0032	CROXFORD FUNERAL HOME & CREMATORY	GREAT FALLS	CASCADE	0	0	0	0	0	0.0
013-0033	NORTHWESTERN MONTANA FIRST MEGAWATTS LLC	GREAT FALLS	CASCADE	2	17	1	1	4	4.3
013-0034	OILY WASTE PROCESSORS		CASCADE	0	0	0	0	0	0.0
013-0035	INTERNATIONAL MALTING CO - GREAT FALLS	GREAT FALLS	CASCADE	0	0	0	0	0	0.0
013-0036	CENTRAL WEST ANIMAL CLINIC, PLLC		CASCADE	0	0	0	0	0	0.0

015-0001	HAVRE PIPELINE CS-102	HAVRE	CHOUTEAU	19	18	0	0	0	14.5
015-0002	BIG SANDY #100 COMPRESSOR STATION		CHOUTEAU	0	0	0	0	0	0.0
017-0001	WILLISTON BASIN - HATHAWAY STATION	HATHAWAY	CUSTER	2	4	0	0	0	2.5
017-0002	MDU - MILES CITY	MILES CITY	CUSTER	3	13	1	1	0	0.0
017-0004	TRANSCO RAILWAY PRODUCTS	MILES CITY	CUSTER	0	0	14	29	0	6.2
017-0005	PHILIP SERVICES CORP. INDUSTRIAL SERVICES GROUP	MILES CITY	CUSTER	2	1	0	0	0	3.7
021-0002	CENTURY - 021-0002	GLENDIVE	DAWSON	2	4	2	3	1	1.5
021-0003	GLENDIVE	GLENDIVE	DAWSON	0	0	0	0	0	24.8
021-0004	WILLISTON BASIN - MORGAN CREEK	GLENDIVE	DAWSON	12	11	0	0	0	8.1
021-0005	MDU - GLENDIVE	GLENDIVE	DAWSON	4	15	1	1	1	0.5
021-0009	FARMERS ELEVATOR	GLENDIVE	DAWSON	0	0	6	22	0	0.0
025-0001	BAKER PLANT	BAKER	FALLON	16	17	1	1	10	14.6
025-0002	WILLISTON BASIN - LITTLE BEAVER	BAKER	FALLON	285	439	1	1	0	6.1
025-0003	WILLISTON BASIN - CABIN CREEK	BAKER	FALLON	230	182	4	4	0	15.4
025-0006	BAKER STATION - 025-0006	BAKER	FALLON	0	0	0	0	0	17.5
025-0008	WILLISTON BASIN - MONARCH STATION	BAKER	FALLON	28	20	1	1	0	25.4
025-0010	WILLISTON BASIN - BAKER COMPRESSOR STA	BAKER	FALLON	153	112	1	1	0	12.2
025-0011	N COMPRESSOR STATION	BAKER	FALLON	1	1	0	0	0	3.4
025-0012	WBI - SOUTH BAKER COMPRESSOR STATION	BAKER	FALLON	24	14	1	1	0	11.9
025-0013	BAKER BOOSTER COMPRESSOR STATION		FALLON	9	8	0	0	0	11.6
027-0004	CENTURY - 027-0004	LEWISTOWN	FERGUS	0	0	0	1	1	0.4
027-0005	KENDALL MINE	HILGER	FERGUS	2	2	8	11	0	0.1
027-0006	MOUNTAIN MEADOWS PET PRODUCTS	LEWISTOWN	FERGUS	0	0	5	7	0	0.0
027-0007	CENTRAL MONTANA CREMATORIUM	LEWISTOWN	FERGUS	0	0	0	0	0	0.0
029-0005	PLUM CREEK SAWMILL AT EVERGREEN	KALISPELL	FLATHEAD	2127	131	99	192	8	24.6
029-0006	KLINGLER LUMBER	KALISPELL	FLATHEAD	0	0	2	5	0	0.0
029-0008	PLUM CREEK MANUFACTURING LP COLMB FLS	COLUMBIA FALLS	FLATHEAD	1133	772	300	422	19	512.6
029-0010	F.H. STOLTZE LAND AND LUMBER CO	COLUMBIA FALLS	FLATHEAD	96	5	52	240	1	19.1
029-0012	COLUMBIA FALLS ALUMINUM	COLUMBIA FALLS	FLATHEAD	6510	6	119	303	328	69.3
029-0016	NUPAC, INC A DIVISION OF HELENA SAND & GRAVEL	KALISPELL	FLATHEAD	2	0	2	2	2	1.2
029-0019	STILLWATER FOREST PRODUCTS	KALISPELL	FLATHEAD	0	0	3	7	0	0.0
029-0024	JTL GROUP - KALISPELL	KALISPELL	FLATHEAD	0	0	0	0	0	0.0

Appendix B - EMISSION INVENTORY DATA FOR 2004

CO=Carbon Monoxide in tons
NO_2=Nitrogen Dioxide in tons
PMT=Total Particulate in tons
PM_{10}=Particulate smaller than 10μ in tons
SO_2=Sulfur Dioxide in tons
VOC=Volatile Organic Carbon in tons

Source Number	Source Name	City	County	CO	NO_2	PM_{10}	PMT	SO_2	VOC
029-0026	PARTNERS IN WOOD	CORAM	FLATHEAD	0	0	0	0	0	0.0
029-0028	MOUNTAIN VIEW PET CREMATORY	KALISPELL	FLATHEAD	0	0	0	0	0	0.0
029-0029	FLATHEAD COUNTY SOLID WASTE DISTRICT	KALISPELL	FLATHEAD	12	5	20	67	0	0.1
029-0030	JOHNSON MORTUARY	KALISPELL	FLATHEAD	0	0	0	0	0	0.0
029-0031	GREAT NORTHERN BARK - 3027	COLUMBIA FALLS	FLATHEAD	0	0	25	68	0	0.0
029-0032	HILLSIDE CREMATORY	WHITEFISH	FLATHEAD	0	0	0	0	0	0.0
031-0001	JTL GROUP INC - 031-0001	BOZEMAN	GALLATIN	61	7	73	117	29	43.1
031-0005	HOLCIM US INC - TRIDENT PLANT	THREE FORKS	GALLATIN	49	1762	198	322	80	2.0
031-0006	LUZENAC AMERICA - THREE FORKS PLANT	THREE FORKS	GALLATIN	7	15	25	51	0	11.0
031-0007	KANTA PRODUCTS	THREE FORKS	GALLATIN	0	0	5	10	0	0.0
031-0008	SAPPINGTON MILL	THREE FORKS	GALLATIN	1	4	11	19	0	0.1
031-0009	EXXON MOBIL - BOZEMAN MARKETING TERMINAL	BOZEMAN	GALLATIN	0	0	0	0	0	10.1
031-0010	MSU - CENTRAL HEATING PLANT	BOZEMAN	GALLATIN	14	28	1	1	0	0.9
031-0011	MT DOL VETERINARY DIAGNOSTIC LAB	BOZEMAN	GALLATIN	0	0	0	0	0	0.0
031-0012	BOZEMAN PRODUCT TERMINAL	BOZEMAN	GALLATIN	0	0	0	0	0	94.7
031-0013	CITY OF BOZEMAN SANITARY LANDFILL	BOZEMAN	GALLATIN	17	1	4	18	1	0.8
031-0014	DOKKEN-NELSON FUNERAL SERVICE	BOZEMAN	GALLATIN	0	0	0	0	0	0.0
031-0015	BIG SKY INSULATION INC	BELGRADE	GALLATIN	0	0	0	0	0	33.5
031-0017	CREMATION OR FUNERAL GALLERY SPANISH PEAKS	BELGRADE	GALLATIN	0	0	0	0	0	0.0
031-0018	ALL PAWS GREAT & SMALL PET CREMATORY		GALLATIN	0	0	0	0	0	0.0
031-0019	AT HOME ON THE RANGE PET CEMETERY	MANHATTAN	GALLATIN	0	0	0	0	0	0.0
035-0004	MAIN LINE #1	CUT BANK	GLACIER	65	34	0	1	0	12.4
035-0005	CUT BANK CRUDE OIL TANK FARM	CUT BANK	GLACIER	0	0	0	0	0	14.1
035-0006	CUT BANK FIELD STATION 015	CUT BANK	GLACIER	15	22	0	0	0	0.3
035-0007	CUT BANK FIELD STATION 002	CUT BANK	GLACIER	13	18	0	0	0	0.2
035-0008	CUT BANK FIELD STATION 025	CUT BANK	GLACIER	24	35	0	0	0	0.6
035-0009	COBB STORAGE FIELD STATION 017	CUT BANK	GLACIER	12	10	0	0	0	0.2
035-0010	CUT BANK FIELD STATION 001	CUT BANK	GLACIER	15	22	0	0	0	0.3
035-0011	CUT BANK FIELD STATION 018	CUT BANK	GLACIER	3	26	0	0	0	0.2
035-0012	GYPSY HIGHVIEW-RED RIVER STATION	CUT BANK	GLACIER	11	5	0	0	0	0.0

035-0013	BLACKFEET SHALLOW GAS SYSTEMS	CUT BANK	GLACIER	0	0	0	0	0	0.0
035-0016	LITTLE ROCK COMPRESSOR STATION	CUT BANK	GLACIER	8	10	0	0	0	0.2
037-0001	BIG COULEE FIELD STATION 057	RYEGATE	GOLDEN VALLEY	23	33	0	0	0	0.4
039-0001	BLACK PINE MINE	WALLACE	GRANITE	0	0	0	1	0	0.0
039-0002	CONTACT MINING CO	PHILLIPSBURG	GRANITE	0	0	0	0	0	0.0
041-0002	HILL COUNTY #1		HILL	16	9	1	1	0	16.4
041-0003	BOX ELDER FIELD STATION 070	HAVRE	HILL	6	10	0	0	0	1.9
041-0004	HILL COUNTY #2		HILL	3	4	0	0	0	0.8
041-0005	HILL COUNTY #3	HAVRE	HILL	4	4	1	1	0	9.0
041-0006	LODGE CREEK PIPELINES, LLC		HILL	0	0	0	0	0	0.0
041-0007	EAST END COLONY STATION		HILL	7	11	0	0	0	4.0
041-0008	NORTH PLAINS CREMATORY	HAVRE	HILL	0	0	0	0	0	0.0
041-0009	STIRLING COMPRESSOR STATION		HILL	0	0	0	0	0	0.0
041-0010	SIGNAL BUTTE COMPRESSOR STATION		HILL	0	0	0	0	0	0.0
043-0001	ASH GROVE CEMENT	CLANCY	JEFFERSON	28	1895	165	264	244	5.8
043-0002	GOLDEN SUNLIGHT MINE	WHITEHALL	JEFFERSON	308	349	660	1441	38	22.2
043-0003	MONTANA TUNNELS MINE	JEFFERSON CITY	JEFFERSON	439	705	1137	2448	77	48.7
045-0001	UNITED HARVEST - MOCCASIN	MOCCASIN	JUDITH	0	0	9	27	0	0.0
049-0001	ASARCO EAST HELENA	EAST HELENA	LEWIS AND CLARK	0	0	0	0	0	0.0
049-0003	AMERICAN CHEMET	EAST HELENA	LEWIS AND CLARK	6	6	8	8	0	0.3
049-0005	HELENA SAND & GRAVEL	HELENA	LEWIS AND CLARK	2	5	15	22	14	19.6
049-0009	LEWIS & CLARK HUMANE SOCIETY	HELENA	LEWIS AND CLARK	0	0	0	0	0	0.0
049-0010	EXXON MOBIL - HELENA MARKETING TERMINAL	HELENA	LEWIS AND CLARK	0	0	0	0	0	10.3
049-0011	HELENA PRODUCT TERMINAL	HELENA	LEWIS AND CLARK	0	0	0	0	0	121.5
049-0013	AUGUSTA MAIN LINE #3 (STA 051)	AUGUSTA	LEWIS AND CLARK	10	4	0	0	0	4.7
049-0014	CITY OF HELENA LANDFILL	HELENA	LEWIS AND CLARK	0	0	0	0	0	0.2
049-0015	MAINLINE #4	BUTTE	LEWIS AND CLARK	0	0	0	0	0	0.0

Appendix B - EMISSION INVENTORY DATA FOR 2004

CO=Carbon Monoxide in tons NO$_2$=Nitrogen Dioxide in tons PMT=Total Particulate in tons PM$_{10}$=Particulate smaller than 10μ in tons
SO$_2$=Sulfur Dioxide in tons VOC=Volatile Organic Carbon in tons

Source Number	Source Name	City	County	CO	NO$_2$	PM$_{10}$	PMT	SO$_2$	VOC
049-0016	HELENA VALLEY PET CREMATIONS	HELENA	LEWIS AND CLARK	0	0	0	0	0	0.0
049-0017	LUNDY CENTER INCINERATOR		LEWIS AND CLARK	0	0	0	0	0	0.0
051-0001	EAST KEITH FIELD STATION 037	SHELBY	LIBERTY	12	6	0	0	0	7.5
051-0002	UTOPIA FIELD STATION 035	LOTHAIR	LIBERTY	3	4	0	0	0	2.0
051-0003	MCW TRANSMISSION LP	SHELBY	LIBERTY	6	9	0	0	0	1.6
051-0004	UTOPIA FIELD STATION - 051-0004		LIBERTY	3	24	0	0	0	5.0
053-0001	OWENS & HURST	EUREKA	LINCOLN	0	0	28	60	0	0.0
053-0002	PLUM CREEK MFG LP - FORTINE	FORTINE	LINCOLN	129	14	47	80	2	63.6
053-0003	GENESIS INC. - TROY MINE	TROY	LINCOLN	2	5	0	0	1	0.4
053-0004	STIMSON LUMBER - LIBBY	LIBBY	LINCOLN	0	0	2	4	0	0.0
053-0010	EUREKA PELLET MILLS	EUREKA	LINCOLN	10	2	32	47	0	3.5
055-0001	WILLISTON BASIN - VIDA STATION	VIDA	McCONE	10	26	0	0	0	12.9
057-0001	YELLOWSTONE MINE	CAMERON	MADISON	32	36	35	77	4	2.2
057-0011	RUBY VALLEY GARNET LLC	ALDER	MADISON	0	0	0	0	0	0.0
057-0012	TREASURE MINE		MADISON	25	31	72	160	3	2.1
057-0013	REGAL MINE	DILLON	MADISON	1	1	5	9	0	0.1
059-0002	BIG SKY CREMATIONS	MARTINSDALE	MEAGHER	0	0	0	0	0	0.0
061-0001	SUPERIOR ENTERPRISES	SUPERIOR	MINERAL	0	0	0	0	0	0.0
061-0004	TRICON TIMBER INC	ST. REGIS	MINERAL	28	20	24	46	1	9.8
061-0005	MOUNTAIN WEST LLC	SUPERIOR	MINERAL	0	0	17	46	0	0.0
061-0006	EUREKA PELLET MILLS - SUPERIOR	SUPERIOR	MINERAL	1	9	17	36	30	1.9
063-0001	STIMSON LUMBER - BONNER	BONNER	MISSOULA	302	211	140	182	11	119.3
063-0002	ROSEBURG FOREST PRODUCTS	MISSOULA	MISSOULA	88	495	195	198	8	19.1
063-0004	PYRAMID MTN LUMBER	SEELEY LAKE	MISSOULA	22	4	90	158	0	50.2
063-0006	STONE CONTAINER	MISSOULA	MISSOULA	3442	1602	343	471	177	309.0
063-0007	JTL GROUP INC - TARGET RANGE	MISSOULA	MISSOULA	0	0	15	37	0	0.0
063-0012	FLYNN LANE - 063-0012	MISSOULA	MISSOULA	2	6	22	39	7	7.6
063-0013	JTL GROUP INC - MICHAEL ROAD	MISSOULA	MISSOULA	2	2	22	55	5	5.1
063-0014	MISSOULA READY MIX	MISSOULA	MISSOULA	0	0	10	21	0	0.0
063-0015	BFI WASTE SYSTEMS OF NA INC	MISSOULA	MISSOULA	3	5	1	1	3	1.7
063-0016	BRADY NELSON	MISSOULA	MISSOULA	0	0	1	3	0	0.0
063-0018	MONTANA RAIL LINK	MISSOULA	MISSOULA	0	0	0	0	0	0.0
063-0020	LAFARGE CORP	MISSOULA	MISSOULA	0	0	0	0	0	0.0

063-0021	BORDEN CHEMICAL INC	MISSOULA	MISSOULA	1	3	1	1	0	7.0
063-0022	MISSOULA BULK TERMINAL	MISSOULA	MISSOULA	20	8	0	0	0	67.9
063-0024	TWITE FAMILY PARTNERSHIP	MISSOULA	MISSOULA	0	1	2	4	0	0.0
063-0030	ROCKWALL - 063-0030		MISSOULA	0	0	0	0	0	0.0
063-0035	MISSOULA COUNTY - GRAVEL PLANT 063-0035		MISSOULA	0	1	0	1	0	0.0
063-0037	SCHELLINGER CONSTRUCTION - 063-0037	SEELEY LAKE	MISSOULA	1	3	1	1	4	4.0
063-0038	SCHELLINGER CONSTRUCTION - 063-0038		MISSOULA	1	3	4	7	1	0.1
063-0039	JTL GROUP - WILKIE STREET - 063-0039	MISSOULA	MISSOULA	1	0	3	4	2	2.3
063-0040	NELCON - 063-0040		MISSOULA	0	0	1	3	0	0.0
063-0041	JTL GROUP - WILKIE STREET - 063-0041	MISSOULA	MISSOULA	0	0	0	0	0	0.0
063-0042	ORANGE STREET FOOD FARM	MISSOULA	MISSOULA	0	0	0	0	0	0.0
063-0043	GARDEN CITY FUNERAL HOME		MISSOULA	0	0	0	0	0	0.0
063-0044	MISSOULA HUMANE SOCIETY		MISSOULA	0	0	0	0	0	0.0
063-0045	PRUYN VETERINARY HOSITAL		MISSOULA	0	0	0	0	0	0.0
063-0046	SUNSET MEMORIAL CEMETERY & FUNERAL HOME	MISSOULA	MISSOULA	0	0	0	0	0	0.0
065-0003	BULL MOUNTAIN MINE 065-0003	ROUNDUP	MUSSEL-SHELL	1	3	15	38	0	0.2
065-0004	ROUNDUP POWER PROJECT		MUSSEL-SHELL	0	0	0	0	0	0.0
067-0001	RY TIMBER	LIVINGSTON	PARK	1	5	23	43	0	0.2
067-0002	PARK COUNTY REFUSE DISTRICT	LIVINGSTON	PARK	2	19	8	12	10	9.0
067-0008	LIVINGSTON STATION 1&2	LIVINGSTON	PARK	0	0	0	0	0	0.1
067-0010	FRANZEN-DAVIS FUNERAL HOME INC	LIVINGSTON	PARK	0	0	0	0	0	0.0
071-0003	BOWDOIN COMPRESSOR STATION	WHITEWATER	PHILLIPS	66	52	1	1	0	32.7
071-0004	HI-LINE CREMATORY	MALTA	PHILLIPS	0	0	0	0	0	0.0
073-0001	BUSCH AGRICULTURAL RESOURCES CONRAD	CONRAD	PONDERA	0	0	9	20	0	0.0
073-0003	SHELBY WILLIAMS FIELD STATION	SHELBY	PONDERA	1	4	0	0	0	0.8
073-0004	BALKO INC - LEDGER FIELD COMPRESSOR ST	CONRAD	PONDERA	6	42	0	0	0	3.0
077-0002	SUN MOUNTAIN LUMBER	DEER LODGE	POWELL	71	48	70	108	4	47.3
081-0005	ROCKY MOUNTAIN LABORATORIES FACILITY	HAMILTON	RAVALLI	6	8	0	1	1	0.8
081-0006	BITTERROOT PET CREMATORIUM	HAMILTON	RAVALLI	0	0	0	0	0	0.0
081-0007	SPECIALTY SURGICAL PRODICTS, INC	VICTOR	RAVALLI	0	0	0	0	0	13.4
083-0002	SIDNEY SUGAR FACILITY	SIDNEY	RICHLAND	192	223	62	120	37	4.9
083-0003	MDU - LEWIS & CLARK STATION	SIDNEY	RICHLAND	101	921	112	322	1166	6.7
083-0005	WESTMORELAND SAVAGE MINE	SAVAGE	RICHLAND	11	21	34	106	2	1.5

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PMT=Total Particulate in tons
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SO_2=Sulfur Dioxide in tons
VOC=Volatile Organic Carbon in tons

Source Number	Source Name	City	County	CO	NO_2	PM_{10}	PMT	SO_2	VOC
083-0008	N YELLOWSTONE	SIDNEY	RICHLAND	6	11	0	0	0	2.2
083-0014	RICHLAND STATION	SIDNEY	RICHLAND	1	15	0	0	0	0.8
083-0015	RICHLAND STATION - 083-0015	SIDNEY	RICHLAND	0	0	6	6	0	54.4
083-0016	GREENFIELD GRAIN ELEVATOR	SIDNEY	RICHLAND	0	0	6	5	0	0.0
083-0017	CATTANEO COMPRESSOR STATION	SIDNEY	RICHLAND	0	0	0	0	0	0.0
083-0018	ED & PAUL 2-17H STATION	BIG PINEY	RICHLAND	7	5	0	0	0	13.5
083-0019	RUFFATTO 2-31H BATTERY	BIG PINEY	RICHLAND	5	2	0	0	0	6.3
083-0020	VAIRA 3-3H BATTERY	BIG PINEY	RICHLAND	6	3	0	0	0	11.7
083-0021	BROWN 1-6H STATION	BIG PINEY	RICHLAND	7	5	0	0	0	13.0
083-0022	CANDEE 1-5H BATTERY	BIG PINEY	RICHLAND	11	5	0	0	0	17.0
083-0023	VAIRSTEP 1-22H BATTERY	BIG PINEY	RICHLAND	12	6	0	0	0	18.0
083-0024	IRIGOIN 15-23 BATTERY	BIG PINEY	RICHLAND	9	4	0	0	0	12.6
083-0025	4 MILE CRUDE OIL STATION		RICHLAND	0	0	1	1	0	8.6
083-0026	GIRARD HALL CRUDE OIL STATION		RICHLAND	0	0	0	0	0	0.0
083-0027	JOE 1-4H BATTERY	BIG PINEY	RICHLAND	4	3	0	0	0	8.3
083-0028	ANNA 1-03H BATTERY	BIG PINEY	RICHLAND	2	2	0	0	0	4.4
083-0029	STEPPLER 14-21H BATTERY	BIG PINEY	RICHLAND	6	4	0	0	0	11.8
083-0030	LEO1-18H	BIG PINEY	RICHLAND	2	1	0	0	0	3.0
083-0031	MICHAELL-27H BATTERY	BIG PINEY	RICHLAND	3	1	0	0	0	6.5
083-0033	JOHN & PETE 1-14H BATTERY		RICHLAND	0	0	0	0	0	0.0
083-0034	BURLINGTON 1-25H	BIG PINEY	RICHLAND	2	1	0	0	0	3.3
083-0035	DOUBLE V 1-21H	BIG PINEY	RICHLAND	1	1	0	0	0	3.3
083-0036	THREE BUTTES COMPRESSOR STATION		RICHLAND	4	2	0	0	0	2.9
083-0037	CHARLIE CREEK COMPRESSOR STATION		RICHLAND	2	1	0	0	0	0.5
083-0038	BAKKEN GATHERING PLANT		RICHLAND	6	4	0	0	0	7.9
083-0039	CC STATE 1-16H		RICHLAND	0	0	0	0	0	0.0
083-0040	EDEBURN 1-2H		RICHLAND	0	0	0	0	0	0.0
083-0041	LONE TREE CRUDE OIL STATION		RICHLAND	0	0	1	1	0	0.0
083-0043	KERMIT 1-27H FACILITY		RICHLAND	0	0	0	0	0	0.0
083-0044	VAIRA COMPRESSOR STATION		RICHLAND	0	0	0	0	0	0.0
083-0045	CAROLINE 1-32H	BIG PINEY	RICHLAND	0	0	0	0	0	0.3
083-0046	CALVIN 1-6H		RICHLAND	0	0	0	0	0	0.0
085-0003	BAINVILLE STATION	BAINVILLE	ROOSEVELT	7	12	0	0	0	4.4
085-0005	MONTOLA GROWERS INC	CULBERTSON	ROOSEVELT	1	6	4	13	0	152.8
085-0006	N. BORDER PIPELINE CO STA. 3	CULBERTSON	ROOSEVELT	97	113	6	6	5	13.0

087-0004	ROSEBUD COUNTY WESTERN ENERGY MINE	COLSTRIP	ROSEBUD	651	601	964	3507	66	35.9
087-0007	COLSTRIP ENERGY LTD PARTNERSHIP	COLSTRIP	ROSEBUD	1	899	20	36	1280	6.2
087-0008	COLSTRIP STEAM ELECTRIC STATION	COLSTRIP	ROSEBUD	2503	31947	574	3349	14707	350.1
087-0009	BIG SKY MINE	COLSTRIP	ROSEBUD	21	37	14	32	4	3.5
087-0010	TONGUE RIVER LUMBER CO	ASHLAND	ROSEBUD	0	0	0	0	0	0.0
089-0003	THOMPSON RIVER LUMBER	THOMPSON FALLS	SANDERS	15	2	17	30	1	0.2
089-0006	US ANTIMONY MINE & MILL	THOMPSON FALLS	SANDERS	1	3	4	4	4	0.0
089-0007	THOMPSON FALLS BULK TERMINAL	THOMPSON FALLS	SANDERS	0	0	0	0	0	21.0
089-0009	THOMPSON RIVER CO-GEN LLC	THOMPSON FALLS	SANDERS	6	4	1	1	5	0.7
089-0010	COPPER/SILVER MINE (ROCK CREEK PROJECT)	NOXON	SANDERS	0	0	0	0	0	0.0
091-0001	CLEAR LAKE STATION	DAGMAR	SHERIDAN	1	1	0	0	0	1.7
091-0003	RESERVE STATION - 091-0003	BELFIELD	SHERIDAN	0	0	0	1	0	8.4
093-0005	RHODIA INC	BUTTE	BUTTE-SILVERBOW	0	0	0	0	0	0.0
093-0007	BUTTE SILVER BOW ASPHALT PLANT	BUTTE	BUTTE-SILVERBOW	0	1	12	25	1	1.1
093-0008	GILMAN EXCAVATING	BUTTE	BUTTE-SILVERBOW	0	0	2	2	1	2.2
093-0009	BERKELY & CONTINENTAL PIT	BUTTE	BUTTE-SILVERBOW	627	471	641	1336	54	25.6
093-0012	BLANKENSHIP - 093-0012	BUTTE	BUTTE-SILVERBOW	1	0	1	1	1	1.2
093-0013	MSE TECHNOLOGY APPLICATION	BUTTE	BUTTE-SILVERBOW	0	0	0	0	0	0.0
093-0015	ADVANCED SILICON MATERIALS FACILITY	BUTTE	BUTTE-SILVERBOW	9	37	30	30	0	0.7
093-0016	BUTTE CREMATORIES INC	BUTTE	BUTTE-SILVERBOW	0	0	0	0	0	0.0
093-0017	CONTINENTAL ENERGY SERVICE INC	RAMSAY	BUTTE-SILVERBOW	0	0	0	0	0	0.0

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VOC=Volatile Organic Carbon in tons

Source Number	Source Name	City	County	CO	NO_2	PM_{10}	PMT	SO_2	VOC
093-0018	BASIN CREEK POWER SERVICES	BUTTE	BUTTE-SILVERBOW	0	0	0	0	0	0.0
095-0001	STILLWATER MINE	NYE	STILLWATER	139	214	159	327	22	13.8
095-0002	STILLWATER MINING CO SMELTER	COLUMBUS	STILLWATER	3	4	8	10	1	0.2
095-0003	ABSAROKEE #054-1	ABSAROKEE	STILLWATER	0	0	0	0	0	0.0
095-0004	BLACKSTONE OPERATING	MOLT	STILLWATER	1	5	0	0	0	1.4
097-0001	STILLWATER - EAST BOULDER	MCLEOD	SWEET GRASS	73	74	18	37	8	4.2
097-0003	LODESTAR MINING AND EXPLORATION	BIG TIMBER	SWEET GRASS	2	6	0	0	0	0.2
099-0001	GYPSY HIGHVIEW GATHERING SYSTEMS	PENDROY	TETON	0	0	0	0	0	0.0
099-0002	FAIRFIELD ELEVATOR	FAIRFIELD	TETON	0	0	14	45	0	0.0
099-0004	MOUNTAIN VIEW OF MONTANA LLC	COLLINS	TETON	0	0	12	50	0	0.0
101-0001	RANCK-KEVIN SUNBURST COMP. STATION	SHELBY	TOOLE	1	7	0	0	0	5.6
101-0003	NORTHERN EXPRESS TRANSPORTATION AUTH	SHELBY	TOOLE	0	0	0	0	0	0.0
101-0004	SHELBY KEVIN FIELD STATION 042	SHELBY	TOOLE	3	3	0	0	0	4.0
101-0008	TELSTAD FIELD STATION 033	SHELBY	TOOLE	21	109	1	1	0	8.2
101-0009	SOUTH MOULTON FIELD	CUT BANK	TOOLE	0	0	0	0	0	0.0
101-0010	NORTH MOULTON FIELD	CUT BANK	TOOLE	7	76	0	0	0	21.2
101-0014	SPECTRUM ENERGY - NORTH DUNKIRK	SHELBY	TOOLE	5	14	0	0	0	2.0
101-0015	FERDIG OIL CO	FERDIG	TOOLE	2	17	0	0	0	0.8
101-0016	GRIFFON PETROLEUM INC	SHELBY	TOOLE	14	20	0	0	0	6.9
101-0017	PRAIRIE DELL CASCADE GAS PLANT	SHELBY	TOOLE	6	28	0	0	0	6.3
101-0018	ALOE VENTURES FACILITY	SHELBY	TOOLE	5	46	0	0	0	1.9
101-0021	FULTON FUEL COMPANY - COMPRESSION	SHELBY	TOOLE	0	0	0	0	0	0.0
101-0022	FULTON FUEL COMPANY - MINERS COULEE	SHELBY	TOOLE	12	11	0	0	0	1.8
105-0001	WILLISTON BASIN - FORT PECK STATION	NASHUA	VALLEY	38	27	1	1	0	20.0
105-0002	WILLISTON BASIN - SACO	SACO	VALLEY	71	41	1	1	0	84.5
105-0003	NORTHERN BORDER PIPELINE CO STA 1	VANDALIA	VALLEY	95	100	5	5	5	12.7
109-0002	ENCORE OPERATING LP	BAKER	WIBAUX	25	23	0	0	0	3.4
109-0003	PINE GAS GATHERING	BAKER	WIBAUX	11	11	0	0	0	1.3
111-0006	CEREAL FOOD - 111-0006	BILLINGS	YELLOW-STONE	0	0	11	27	0	0.0

111-0007	WESTERN SUGAR COOPERATIVE	BILLINGS	YELLOWSTONE	172	194	18	61	85	10.1
111-0011	CONOCOPHILLIPS	BILLINGS	YELLOWSTONE	523	614	96	312	340	620.4
111-0012	CENEX HARVEST STATES	LAUREL	YELLOWSTONE	493	933	50	112	1730	1505.8
111-0013	EXXON MOBIL BILLINGS REFINERY	BILLINGS	YELLOWSTONE	330	1067	185	328	5049	957.0
111-0014	MONTANA SULPHUR & CHEMICAL	BILLINGS	YELLOWSTONE	617	4	1	1	2156	0.3
111-0015	PPL MONTANA - JE CORETTE PLANT	BILLINGS	YELLOWSTONE	225	2043	88	565	3575	26.3
111-0019	COORS BREWING CO	HUNTLEY	YELLOWSTONE	0	0	2	6	0	0.0
111-0023	YELLOWSTONE ENERGY LIMITED PARTNERSHIP	BILLINGS	YELLOWSTONE	59	586	20	62	1906	9.4
111-0024	EXXON MOBIL BULK TERMINAL	BILLINGS	YELLOWSTONE	0	0	0	0	0	3.4
111-0025	LAUREL EAST VETERINARY SERVICE	LAUREL	YELLOWSTONE	0	0	0	0	0	0.2
111-0028	BILLINGS BAKERY	BILLINGS	YELLOWSTONE	1	2	0	0	0	57.9
111-0031	POMPEYS PILLAR SUB-TERMINAL	BILLINGS	YELLOWSTONE	0	0	5	10	0	0.0
111-0032	CREMATION OR FUNERAL GALLERY	BILLINGS	YELLOWSTONE	0	0	0	0	0	0.0
111-0033	CITY OF BILLINGS ANIMAL SHELTER	BILLINGS	YELLOWSTONE	0	0	0	0	0	0.0
111-0034	FIBERGLASS STRUCTURES		YELLOWSTONE	0	0	0	0	0	17.2
111-0035	A TREASURED FRIEND CREMATORY AND MONUMENT COMPANY		YELLOWSTONE	0	0	0	0	0	0.0
777-0181	DEER LODGE COUNTY		PORTABLE	0	0	0	0	0	0.1
777-0310	FLATHEAD COUNTY ROAD DEPT.		PORTABLE	5	3	6	8	5	4.1
777-2170	FRANZ CONSTRUCTION INC		PORTABLE	1	2	2	4	2	2.9
777-2382	DEER LODGE ASPHALT - 777-2382		PORTABLE	0	0	0	0	0	0.0
777-2523	GALLATIN COUNTY RD DEPT		PORTABLE	0	1	3	6	0	0.1

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Source Number	Source Name	City	County	CO	NO_2	PM_{10}	PMT	SO_2	VOC
777-2526	CENTURY - 777-2526		PORTABLE	0	0	0	0	0	0.0
777-2527	CENTURY - 777-2527		PORTABLE	1	2	3	4	2	2.4
777-2528	KONITZ - 777-2528		PORTABLE	0	2	2	4	0	0.1
777-2529	KONITZ - 777-2529		PORTABLE	0	2	3	6	0	0.1
777-2533	TREASURE STATE CONSTRUCTION		PORTABLE	1	6	3	4	1	0.2
777-2535	JTL GROUP KALISPELL - 777-2535		PORTABLE	0	0	0	0	0	0.0
777-2537	MONTGOMERY CONSTRUCTION		PORTABLE	0	0	0	0	0	0.0
777-2542	GILMAN EXCAVATING - 777-2542		PORTABLE	2	5	9	12	8	11.8
777-2543	GILMAN EXCAVATING INC		PORTABLE	4	10	17	22	16	24.9
777-2544	GILMAN EXCAVATING - 777-2544		PORTABLE	0	0	0	0	0	0.0
777-2545	GILMAN EXCAVATING - 777-2545		PORTABLE	3	12	7	12	2	0.4
777-2551	WEAVER GRAVEL - 777-2551		PORTABLE	0	0	0	0	0	0.0
777-2552	JOHNSON BROTHERS CONTRACTING		PORTABLE	0	0	0	0	0	0.0
777-2555	STS GRAVEL		PORTABLE	0	0	2	3	0	0.0
777-2559	FIKE CRUSHING		PORTABLE	2	8	7	13	1	0.2
777-2561	RIVERSIDE CONTRACTING - 2561		PORTABLE	0	0	0	0	0	0.0
777-2566	JTL GROUP - 777-2566		PORTABLE	2	9	10	18	1	0.3
777-2569	PRINCE INC		PORTABLE	10	11	22	29	32	45.6
777-2570	FIGGINS SAND & GRAVEL - 777-2570		PORTABLE	0	0	0	0	0	0.0
777-2572	WOODRING'S CONSTRUCTION		PORTABLE	0	0	0	1	0	0.0
777-2576	PRINCE INC - 777-2576		PORTABLE	3	13	14	19	1	0.9
777-2581	FISHER SAND & GRAVEL - 777-2581		PORTABLE	0	0	0	0	0	0.0
777-2584	FISHER SAND & GRAVEL - 777-2584		PORTABLE	0	0	18	34	0	0.0
777-2585	FISHER SAND & GRAVEL - 777-2585		PORTABLE	0	0	0	0	0	0.0
777-2587	FISHER SAND & GRAVEL - 777-2587		PORTABLE	0	0	0	0	0	0.0
777-2590	HK CONTRACTORS INC - 2590		PORTABLE	1	3	3	4	3	4.3
777-2596	HL OSTERMILLER CONSTRUCTION INC		PORTABLE	1	2	2	2	3	2.8
777-2597	FRANCIS MUGGLI INC		PORTABLE	0	0	0	0	0	0.0
777-2598	CENTENNIAL - 777-2598		PORTABLE	1	3	7	14	0	0.3
777-2599	MICKELSON ROCK PRODUCTS		PORTABLE	0	0	0	1	0	0.0
777-2601	JAMES CARNEY - 777-2601		PORTABLE	0	1	1	1	0	0.1
777-2605	SHUMAKER TRUCKING & EXCAVATING - 2605		PORTABLE	0	0	3	4	0	0.0
777-2615	LHC INC - 777-2615		PORTABLE	0	0	3	5	0	0.0
777-2618	BORDER STATES - 777-2618		PORTABLE	1	9	3	4	11	0.4

777-2621	MAYO CONSTRUCTION CO	PORTABLE	0	0	0	0	0	0.0
777-2622	SCHELLINGER CONSTRUCTION - 2622	PORTABLE	0	0	0	0	0	0.0
777-2623	SCHELLINGER CONSTRUCTION - 2623	PORTABLE	7	8	13	19	4	0.8
777-2624	SCHELLINGER CONSTRUCTION - 2624	PORTABLE	0	0	7	13	0	0.0
777-2626	PIONEER CONCRETE & FUEL - 777-2626	PORTABLE	1	4	2	3	1	0.1
777-2628	BIG SKY ASPHALT - 2628	PORTABLE	0	0	0	0	0	0.0
777-2631	RAMAKER-SWANSON INC	PORTABLE	0	0	0	0	0	0.0
777-2641	CENTURY - 777-2641	PORTABLE	2	4	8	11	5	4.0
777-2652	PURCELL CONSTRUCTION	PORTABLE	0	0	0	0	0	0.0
777-2658	RIVERSIDE CONTRACTING - 2658	PORTABLE	0	0	0	0	0	0.0
777-2659	JTL GROUP - 777-2659	PORTABLE	0	0	4	9	0	0.0
777-2666	RIVERSIDE GRAVEL & TRUCKING - 777-2666	PORTABLE	0	0	0	0	0	0.0
777-2673	HELENA SAND & GRAVEL - 777-2673	PORTABLE	3	10	12	22	1	1.2
777-2675	WASHINGTON GROUP - 2675	PORTABLE	0	0	0	0	0	0.0
777-2678	KEM READY MIX INC	PORTABLE	0	0	1	1	0	0.0
777-2684	FISHER SAND & GRAVEL - 777-2684	PORTABLE	0	0	0	0	0	0.0
777-2689	MCELROY & WILKEN INC - 777-2689	PORTABLE	0	0	3	5	0	0.0
777-2690	HL OSTERMILLER CONSTRUCTION	PORTABLE	1	5	6	15	0	0.4
777-2691	AM WELLES INC - 777-2691	PORTABLE	1	4	7	12	1	0.1
777-2696	CASINO CREEK CONCRETE INC	PORTABLE	0	1	3	5	0	0.1
777-2712	HAMILTON ROCK PRODUCTS	PORTABLE	0	0	1	3	0	0.0
777-2715	PORTABLE INC - 777-2715	PORTABLE	0	2	6	11	0	0.2
777-2716	FLATHEAD COUNTY ROAD DEPARTMENT	PORTABLE	0	0	1	2	0	0.0
777-2730	FISHER SAND & GRAVEL - 777-2730	PORTABLE	1	2	8	17	0	0.2
777-2733	LIVINGSTON SAND & GRAVEL	PORTABLE	0	0	0	0	0	0.0
777-2735	BLAHNIK - 777-2735	PORTABLE	0	0	0	0	0	0.0
777-2744	HOLLOW CONTRACTING, INC. 2744	PORTABLE	0	0	0	0	0	0.0
777-2746	T-BEND - 777-2746	PORTABLE	1	0	5	8	7	9.2
777-2751	WASHINGTON GROUP - 2751	PORTABLE	2	7	30	39	1	0.3
777-2774	CENTENNIAL - 777-2774	PORTABLE	0	0	0	0	0	0.0
777-2775	RIVERSIDE CONTRACTING - 2775	PORTABLE	5	11	27	35	23	22.9
777-2776	GOOSE BAY EQUIPMENT, INC - 777-2776	PORTABLE	0	0	0	0	0	0.0
777-2777	KALISPELL READY MIX - 777-2777	PORTABLE	0	0	5	9	0	0.0
777-2788	JTL GROUP INC - 777-2788	PORTABLE	0	0	46	100	0	0.0
777-2789	BLANKENSHIP - 777-2789	PORTABLE	0	0	0	0	0	0.0
777-2795	THOMPSON RIVER REDI-MIX - 777-2795	PORTABLE	0	0	2	4	0	0.0
777-2820	INTERMOUNTAIN CONSTRUCTION & MATERIALS	PORTABLE	0	0	0	0	0	0.0
777-2828	JTL GROUP INC - 777-2828	PORTABLE	0	0	0	0	0	0.0
777-2839	CENTURY CONSTRUCTION CO	PORTABLE	1	4	5	8	3	4.4

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Source Number	Source Name	City	County	CO	NO$_2$	PM$_{10}$	PMT	SO$_2$	VOC
777-2840	NORTHERN IMPROVEMENT - 777-2840		PORTABLE	0	0	0	0	0	0.0
777-2844	VOLK SAND & GRAVEL INC		PORTABLE	0	1	0	1	0	0.0
777-2848	FISHER SAND & GRAVEL - 777-2848		PORTABLE	1	3	3	6	0	0.1
777-2851	MOUNTAIN EXCAVATING		PORTABLE	0	0	0	0	0	0.0
777-2852	J&J EXCAVATING AND TRUCKING		PORTABLE	0	0	0	0	0	0.0
777-2859	MCMURRY READY MIX CO - 777-2859		PORTABLE	0	0	0	0	0	0.0
777-2861	MCMURRAY READY MIX CO - 777-2861		PORTABLE	0	0	0	0	0	0.0
777-2864	COLEMAN CONSTRUCTION - 777-2864		PORTABLE	0	0	0	0	0	0.0
777-2865	MCMURRY READY MIX CO - 777-2865		PORTABLE	0	0	0	0	0	0.0
777-2866	MCMURRY READY MIX CO - 777-2866		PORTABLE	0	0	0	0	0	0.0
777-2867	MCMURRY READY MIX CO - 777-2867		PORTABLE	0	0	0	0	0	0.0
777-2868	MCMURRY READY MIX CO - 777-2868		PORTABLE	0	0	0	0	0	0.0
777-2872	JENSEN PAVING - 777-2872		PORTABLE	1	3	9	12	8	5.8
777-2873	HOLLOW CONTRACTING, INC. 2873		PORTABLE	1	1	4	5	3	5.2
777-2892	TREASURE STATE CONSTRUCTION - 777-2892		PORTABLE	1	6	7	14	1	0.2
777-2893	TREASURE STATE CONSTRUCTION - 777-2893		PORTABLE	1	6	4	7	1	0.2
777-2895	BLAHNIK - 777-2895		PORTABLE	0	0	0	0	0	0.0
777-2901	FIRST ENERGY SERVICES COMPANY		PORTABLE	0	1	1	1	0	0.0
777-2902	BALTRUSCH - 777-2902		PORTABLE	1	5	2	5	1	0.2
777-2904	FISHER SAND & GRAVEL - 777-2904		PORTABLE	0	0	0	0	0	0.0
777-2910	FISHER SAND & GRAVEL - 777-2910		PORTABLE	0	0	0	0	0	0.0
777-2916	FISHER SAND & GRAVEL - 777-2916		PORTABLE	0	0	0	0	0	0.0
777-2917	FISHER SAND & GRAVEL - 777-2917		PORTABLE	0	0	0	0	0	0.0
777-2921	AM WELLES INC - 777-2921		PORTABLE	1	3	4	7	1	0.1
777-2925	LHC INC - 777-2925		PORTABLE	0	2	3	6	0	0.1
777-2927	UNITED MATERIALS (MRGP)		PORTABLE	0	0	0	0	0	0.0
777-2928	UNITED MATERIALS OF GREAT FALLS - 777-2928		PORTABLE	0	0	8	15	0	0.0
777-2939	TITAN CONSTRUCTION - 2939		PORTABLE	0	0	1	2	0	0.0
777-2941	UNITED MATERIALS OF GREAT FALLS 777-2941		PORTABLE	4	17	35	68	3	0.5
777-2944	FELSTET CONCRETE PRODUCTS - 2944		PORTABLE	0	0	1	3	0	0.0
777-2958	RON LEWIS GRAVEL		PORTABLE	0	0	0	0	0	0.0

777-2960	BATES - 2960	PORTABLE	2	8	5	7	1	0.7
777-2961	DICKMAN EXCAVATING	PORTABLE	0	0	0	0	0	0.0
777-2971	HALL SAND AND GRAVEL	PORTABLE	0	0	0	0	0	0.0
777-2977	HK CONTRACTORS INC - 2977	PORTABLE	0	0	0	0	0	0.0
777-2978	JTL GROUP MISSOULA - 777-2978	PORTABLE	0	1	6	9	0	0.0
777-2983	SMAIL CONSTRUCTION	PORTABLE	0	0	0	0	0	0.0
777-2984	JIM CLARK & SONS CONTRACTING	PORTABLE	0	0	0	0	0	0.0
777-2985	LHC INC - 777-2985	PORTABLE	1	2	6	7	6	8.8
777-2986	WEST END SAND & GRAVEL CO	PORTABLE	0	2	1	3	0	0.2
777-2989	HK CONTRACTORS INC - 2989	PORTABLE	0	0	7	14	1	1.0
777-2990	WARD CRUSHING - 777-2990	PORTABLE	0	1	1	2	0	0.1
777-2996	JTL GROUP KALISPELL - 777-2996	PORTABLE	4	3	16	23	12	17.8
777-3001	STEWART EXCAVATING INC	PORTABLE	0	0	1	1	0	0.0
777-3004	SHENANDOAH ROCK PRODUCTS	PORTABLE	0	0	0	0	0	0.0
777-3008	CENTURY COMPANIES INC - 777-3008	PORTABLE	1	2	4	6	2	3.8
777-3009	ARG SAND & GRAVEL	PORTABLE	0	0	0	0	0	0.0
777-3010	THOMPSON FALLS SAND & GRAVEL	PORTABLE	0	1	1	3	0	0.1
777-3011	RAVALLI COUNTY ROAD DEPARTMENT	PORTABLE	0	2	2	2	0	0.1
777-3013	RAVALLI COUNTY ROAD DEPARTMENT - 777-3013	PORTABLE	0	0	5	10	1	0.8
777-3015	JOHN SCHLECHT - 3015	PORTABLE	0	0	1	1	0	0.3
777-3016	DONALDSON - 777-3016	PORTABLE	0	0	6	12	0	0.0
777-3017	DONALDSON - 777-3017	PORTABLE	0	0	0	0	0	0.0
777-3020	GRANITE CONCRETE CO INC	PORTABLE	0	0	2	4	0	0.0
777-3022	TROY SAND & GRAVEL	PORTABLE	0	0	0	0	0	0.0
777-3023	POLSON READY MIX CONCRETE INC	PORTABLE	0	0	0	0	0	0.0
777-3024	WOODS CRUSHING & HAULING INC	PORTABLE	0	0	0	0	0	0.0
777-3026	LASALLE SAND & GRAVEL LLP	PORTABLE	0	0	0	0	0	0.0
777-3028	SPERRY GRAVEL (DBA DISCOUNT GRAVEL)	PORTABLE	0	0	0	0	0	0.0
777-3029	REMP SAND & GRAVEL LLC	PORTABLE	1	5	2	4	0	0.4
777-3040	RE MILLER & SONS	PORTABLE	0	1	0	1	0	0.0
777-3042	CENTURY CONSTRUCTION CO	PORTABLE	6	10	17	26	11	12.7
777-3045	SCHELLINGER CONSTRUCTION	PORTABLE	7	21	27	33	18	25.8
777-3046	RIVERSIDE CONTRACTING	PORTABLE	5	4	29	35	21	40.0
777-3047	LHC INC	PORTABLE	0	0	0	0	0	0.0
777-3048	LHC INC	PORTABLE	0	0	0	0	0	0.0
777-3049	LHC INC	PORTABLE	0	0	0	0	0	0.0
777-3050	LHC INC	PORTABLE	0	0	0	0	0	0.0
777-3051	CHEMICAL LIME CO	PORTABLE	0	0	0	0	0	0.0
777-3052	CHEMICAL LIME CO	PORTABLE	0	0	0	0	0	0.0

Appendix B - EMISSION INVENTORY DATA FOR 2004

CO=Carbon Monoxide in tons
NO_2=Nitrogen Dioxide in tons
PMT=Total Particulate in tons
PM_{10}=Particulate smaller than 10μ in tons
SO_2=Sulfur Dioxide in tons
VOC=Volatile Organic Carbon in tons

Source Number	Source Name	City	County	CO	NO_2	PM_{10}	PMT	SO_2	VOC
777-3054	BITTERROOT ROCK PRODUCTS		PORTABLE	0	0	0	0	0	0.0
777-3059	BELT VALLEY DEVELOPMENT CO INC		PORTABLE	0	0	0	0	0	0.0
777-3061	BALTRUSCH		PORTABLE	0	0	0	0	0	0.5
777-3062	FISHER SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3063	CIB GRAVEL		PORTABLE	0	2	4	9	0	0.1
777-3064	EH OFTEDAL & SONS		PORTABLE	0	0	0	0	0	0.0
777-3065	JTL GROUP		PORTABLE	0	0	29	57	0	0.0
777-3066	RMR AGGREGATE		PORTABLE	0	0	1	3	0	0.0
777-3067	FISHER SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3068	SPAULDING		PORTABLE	0	0	1	1	0	0.0
777-3073	WARREN TRANSPORT		PORTABLE	0	0	0	0	0	0.0
777-3074	AMES CONSTRUCTION INC		PORTABLE	0	0	0	0	0	0.0
777-3075	FISHER SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3076	FISHER SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3078	FISHER SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3079	FISHER SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3080	FISHER SAND & GRAVEL		PORTABLE	1	6	3	6	1	0.2
777-3081	FISHER SAND & GRAVEL		PORTABLE	0	0	2	5	0	0.0
777-3084	GRATECH COMPANY		PORTABLE	0	1	3	6	0	0.0
777-3087	PHILLIPS CONSTRUCTION		PORTABLE	0	0	0	0	0	0.0
777-3090	HK CONTRACTORS INC		PORTABLE	0	0	0	0	0	0.0
777-3091	HK CONTRACTORS INC		PORTABLE	0	0	0	0	0	0.0
777-3092	BILLINGS AJ GRAVEL PIT		PORTABLE	0	0	0	0	0	0.0
777-3095	SCHESSLER READY MIX		PORTABLE	0	0	1	2	0	0.0
777-3096	JTL GROUP INC		PORTABLE	31	2	18	22	12	14.6
777-3097	KRUG & SONS INC		PORTABLE	0	0	1	3	0	0.0
777-3098	KOONTZ CONSTRUCTION INC		PORTABLE	0	0	0	1	0	0.0
777-3099	KOOTENAI PAVING LLC		PORTABLE	1	3	2	3	4	2.6
777-3100	JTL GROUP INC – BILLINGS		PORTABLE	0	0	5	8	0	0.0
777-3101	JTL GROUP INC – BILLINGS		PORTABLE	0	0	8	17	0	0.0
777-3103	FISHER SAND & GRAVEL		PORTABLE	0	0	9	18	0	0.0
777-3104	RL SCHAFF CONCRETE		PORTABLE	0	0	3	5	0	0.0
777-3108	ROCKY MOUNTAIN RECYCLING & CRUSHING		PORTABLE	0	0	0	0	0	0.0
777-3109	BROKEN O RANCH		PORTABLE	0	0	0	0	0	0.0

777-3110	INTERNATIONAL MALTING	PORTABLE	0	0	13	28	0	0.0
777-3111	GASVODA CONSTRUCTION	PORTABLE	0	0	0	0	0	0.0
777-3112	WIBAUX COUNTY ROAD DEPARTMENT	PORTABLE	0	1	0	1	0	0.1
777-3115	VALLEY EXCAVATING/WEST SHORE GRAVEL	PORTABLE	0	0	0	0	0	0.0
777-3123	BUFFALO RANCH DEVELOPMENT	PORTABLE	0	0	0	0	0	0.0
777-3127	THIESSEN TEAM U.S.A.	PORTABLE	0	0	0	1	0	0.0
777-3129	M&W MILLING & REFINING, INC.	PORTABLE	0	0	0	0	0	0.0
777-3130	MASTODON SAND & GRAVEL INC.	PORTABLE	0	0	0	0	0	0.0
777-3132	PORTABLE INC	PORTABLE	0	0	2	4	0	0.0
777-3133	EMPIRE SAND & GRAVEL	PORTABLE	14	2	9	6	5	5.8
777-3134	EMPIRE SAND & GRAVEL	PORTABLE	0	0	4	8	0	0.0
777-3142	JTL GROUP INC	PORTABLE	0	0	4	6	3	2.1
777-3143	SLOPE COMPANY	PORTABLE	0	0	0	0	0	0.0
777-3146	VOLK SAND & GRAVEL	PORTABLE	0	0	0	0	0	0.0
777-3149	ROCKY MOUNTAIN CONCRETE PRODUCTS	PORTABLE	0	0	10	13	0	0.2
777-3151	BRIDGEFORD CONSTRUCTION	PORTABLE	0	0	0	0	0	0.0
777-3155	RAIL ENERGY OF MONTANA - BUTTE	PORTABLE	0	0	0	0	0	0.0
777-3159	RBC ENTERPRISES	PORTABLE	0	0	0	0	0	0.0
777-3161	VALLEY EXCAVATING	PORTABLE	0	1	2	5	0	0.0
777-3162	UNITED MATERIALS OF GREAT FALLS	PORTABLE	5	16	14	20	21	12.2
777-3163	C&S CONSTRUCTION	PORTABLE	0	0	0	0	0	0.0
777-3167	HELENA SAND & GRAVEL	PORTABLE	0	0	0	0	0	0.0
777-3172	FISHER SAND & GRAVEL	PORTABLE	0	0	3	6	0	0.0
777-3173	FISHER SAND & GRAVEL	PORTABLE	0	1	1	1	0	0.0
777-3174	FISHER SAND & GRAVEL	PORTABLE	0	0	0	0	0	0.0
777-3176	ABC GRAVEL	PORTABLE	1	3	1	3	0	0.2
777-3177	ARLIAN EXCAVATING	PORTABLE	0	0	0	0	0	0.0
777-3184	GRIZZLY LOGGING & LUMBER, LLC	PORTABLE	0	1	0	0	0	0.1
777-3186	KONITZ	PORTABLE	0	0	0	0	0	0.0
777-3187	KONITZ	PORTABLE	0	0	0	0	0	0.0
777-3188	T-BEND	PORTABLE	1	3	1	3	0	0.2
777-3189	SPAULDING	PORTABLE	0	0	0	0	0	0.0
777-3190	PIONEER CONCRETE & FUEL	PORTABLE	0	2	2	3	0	0.2
777-3191	VALLEY EXCAVATING	PORTABLE	0	0	1	1	0	0.0
777-3192	VALLEY EXCAVATING	PORTABLE	0	0	1	1	0	0.0
777-3194	OTTO CONSTRUCTION	PORTABLE	0	0	0	0	0	0.0
777-3195	HILINE REDI-MIX	PORTABLE	0	0	0	0	0	0.0
777-3196	VALLEY EXCAVATING	PORTABLE	0	1	0	0	0	0.0
777-3197	LHC INC	PORTABLE	0	0	3	7	0	0.0

Appendix B - EMISSION INVENTORY DATA FOR 2004

CO=Carbon Monoxide in tons　NO$_2$=Nitrogen Dioxide in tons　PMT=Total Particulate in tons　PM$_{10}$=Particulate smaller than 10µ in tons

SO$_2$=Sulfur Dioxide in tons　VOC=Volatile Organic Carbon in tons

Source Number	Source Name	City	County	CO	NO$_2$	PM$_{10}$	PMT	SO$_2$	VOC
777-3198	FISHER SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3199	FISHER SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3202	PORTABLE INC		PORTABLE	0	0	0	0	0	0.0
777-3203	PEAK SAND & GRAVEL		PORTABLE	2	9	8	15	1	0.7
777-3204	HOLLOW CONTRACTING, INC.		PORTABLE	0	0	0	0	0	0.0
777-3205	HILINE REDI-MIX		PORTABLE	0	0	0	0	0	0.0
777-3206	HILINE REDI-MIX		PORTABLE	0	0	0	0	0	0.0
777-3207	INTERSTATE CONCRETE AND ASPHALT COMPANY		PORTABLE	0	0	0	0	0	0.0
777-3208	CPM DEVELOPMENT CORP (DBA INLAND ASPHALT)		PORTABLE	0	0	0	0	0	0.0
777-3209	SCHELLINGER CONSTRUCTION		PORTABLE	0	0	2	2	0	0.0
777-3210	SCHELLINGER CONSTRUCTION		PORTABLE	0	0	0	0	0	0.0
777-3212	CPM		PORTABLE	0	0	0	0	0	0.0
777-3213	GREAT NORTHERN BARK		PORTABLE	0	0	0	0	0	0.0
777-3215	FISHER SAND & GRAVEL		PORTABLE	0	0	2	2	0	0.0
777-3216	RBC ENTERPRISES		PORTABLE	1	3	10	22	0	0.2
777-3219	AM WELLES INC		PORTABLE	1	4	5	11	1	0.1
777-3221	EAGLE PRODUCTS		PORTABLE	0	0	0	0	0	0.0
777-3222	JOHN SCHLECHT		PORTABLE	0	0	0	0	0	0.0
777-3223	BULLOCK CONTRACTING		PORTABLE	0	0	0	0	0	0.0
777-3224	CPM DEVELOPMENT CORP (DBA INLAND ASPHALT)		PORTABLE	0	0	0	0	0	0.0
777-3225	HELENA SAND & GRAVEL		PORTABLE	0	0	13	30	0	0.0
777-3227	TOM ROE & SON CONSTRUCTION		PORTABLE	0	0	0	0	0	0.0
777-3228	BIG SKY ASPHALT		PORTABLE	0	0	0	0	0	0.0
777-3230	S&N CONCRETE		PORTABLE	0	0	3	5	0	0.0
777-3231	S&N CONCRETE		PORTABLE	0	0	1	2	0	0.0
777-3232	S&N CONCRETE		PORTABLE	0	0	0	1	0	0.0
777-3233	HUTTINGA CONTRACTING		PORTABLE	1	2	2	4	0	0.1
777-3234	MONTANA PORTABLE CRUSHING		PORTABLE	0	0	0	0	0	0.0
777-3235	MONTANA PORTABLE CRUSHING		PORTABLE	0	0	0	0	0	0.0
777-3239	BRET PRICE EXCAVATING		PORTABLE	0	0	0	0	0	0.0
777-3240	RIVERSIDE GRAVEL & TRUCKING		PORTABLE	0	0	1	2	0	0.0
777-3241	WARD CRUSHING		PORTABLE	0	1	2	4	0	0.0

777-3242	SCHELLINGER CONSTRUCTION	PORTABLE	0	1	1	2	0	0.0
777-3244	UNITED MATERIALS	PORTABLE	0	0	1	2	0	0.0
777-3245	ROCKWALL	PORTABLE	0	0	0	0	0	0.0
777-3246	ROBINS CONTRACTING INC	PORTABLE	0	0	0	0	0	0.0
777-3247	NAESETH'S REDI-MIX	PORTABLE	0	0	2	4	0	0.0
777-3248	GOOSE BAY EQUIPMENT	PORTABLE	0	0	0	0	0	0.0
777-3249	ROBIN'S CONTRACTING INC	PORTABLE	0	0	0	0	0	0.0
777-3252	ROCK SOLID ENTERPRISES	PORTABLE	0	0	0	0	0	0.0
777-3253	ROCK SOLID ENTERPRISES	PORTABLE	0	0	0	0	0	0.0
777-3254	ROCK SOLID ENTERPRISES	PORTABLE	0	0	2	4	0	0.0
777-3255	GRAVEL WORKS INC	PORTABLE	0	0	1	1	0	0.0
777-3256	WEAVER GRAVEL	PORTABLE	1	5	2	3	0	0.4
777-3257	SCHELLINGER CONSTRUCTION	PORTABLE	0	0	2	1	0	0.0
777-3258	SCHELLINGER CONSTRUCTION	PORTABLE	5	18	2	2	3	0.6
777-3260	FISHER SAND & GRAVEL	PORTABLE	0	0	0	0	0	0.0
777-3261	SCHELLINGER CONSTRUCTION	PORTABLE	0	0	0	0	0	0.0
777-3263	DELHUR INDUSTRIES	PORTABLE	0	0	0	0	0	0.0
777-3265	JOHN J THOMPSON, INC	PORTABLE	0	0	0	0	0	0.0
777-3266	FISHER SAND & GRAVEL	PORTABLE	0	0	10	19	0	0.0
777-3267	FISHER SAND & GRAVEL	PORTABLE	0	0	7	14	0	0.0
777-3268	LYONS CONSTRUCTION	PORTABLE	0	0	0	0	0	0.0
777-3270	SANDON GRAVEL & EXCAVATING, INC	PORTABLE	0	1	1	2	0	0.0
777-3276	LITTLE RIVER ENTERPRISES	PORTABLE	0	0	0	0	0	0.0
777-3277	MISSOURI RIVER TREE FARMS, INC.	PORTABLE	0	0	0	0	0	0.0
777-3278	PINKY'S AGGREGATES, INC	PORTABLE	0	0	0	0	0	0.0
777-3279	JUDITH BASIN COUNTY	PORTABLE	0	0	1	1	0	0.0
777-3280	UNITED MATERIALS	PORTABLE	0	0	1	1	0	0.0
777-3282	ROUNDUP TRADING INTERNATIONAL, LLC	PORTABLE	0	0	0	0	0	0.0
777-3283	KNOLL'S READY MIX	PORTABLE	0	0	0	0	0	0.0
777-3284	SCHELLINGER CONSTRUCTION	PORTABLE	2	8	3	3	1	0.3
777-3285	SCHELLINGER CONSTRUCTION	PORTABLE	0	0	2	3	0	0.0
777-3287	WESTERN RECLAMATION	PORTABLE	0	0	0	0	0	0.0
777-3288	JTL GROUP	PORTABLE	0	0	0	0	0	0.0
777-3290	INTERNATIONAL MALTING COMPANY	PORTABLE	0	0	0	0	0	0.0
777-3291	SCHELLINGER CONSTRUCTION	PORTABLE	0	0	0	0	0	0.0
777-3293	DEPARTMENT OF LIVESTOCK	PORTABLE	0	0	0	0	0	0.1
777-3296	WOLF MOUNTAIN COAL	PORTABLE	0	0	0	0	0	0.0
777-3304	CARLSON SAND & GRAVEL	PORTABLE	0	0	0	0	0	0.0
777-3315	BLAHNIK	PORTABLE	0	0	0	0	0	0.0
777-3319	CONCRETE PLACING CO	PORTABLE	0	0	0	0	0	0.0

Appendix B - EMISSION INVENTORY DATA FOR 2004

CO=Carbon Monoxide in tons
NO_2=Nitrogen Dioxide in tons
PMT=Total Particulate in tons
PM_{10}=Particulate smaller than 10μ in tons
SO_2=Sulfur Dioxide in tons
VOC=Volatile Organic Carbon in tons

Source Number	Source Name	City	County	CO	NO_2	PM_{10}	PMT	SO_2	VOC
777-3320	AGGQUIP, LLC		PORTABLE	0	0	0	0	0	0.0
777-3324	SCHELLINGER CONSTRUCTION		PORTABLE	0	0	0	0	0	0.0
777-3329	JMTA, INC		PORTABLE	0	0	0	0	0	0.0
777-3338	ROCK SOLID ENTERPRISES		PORTABLE	0	0	0	0	0	0.0
777-3339	FISHER SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3340	FISHER SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3341	PEAK SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3342	JIM PHILLIPS		PORTABLE	0	0	0	0	0	0.0
777-3346	SPOKLIE'S SOUTH VALLEY GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3347	BORDER STATES		PORTABLE	0	0	0	0	0	0.0
777-3351	NELCON		PORTABLE	0	0	0	0	0	0.0
777-3355	ROCKWALL		PORTABLE	0	0	0	0	0	0.0
777-3359	HARRIS SAND & GRAVEL		PORTABLE	0	0	0	0	0	0.0
777-3361	COLEMAN CONSTRUCTION		PORTABLE	0	0	0	0	0	0.0
777-3363	SALOIS CONSTRUCTION		PORTABLE	0	0	0	0	0	0.0

APPENDIX C -- HISTORICAL MONITORING SUMMARY

The table lists all sites monitored prior to 2005 with data in the EPA database.

Montana Historical Monitoring Summary

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
001	0001	11101	Suspended Particulate (Tsp)	BEAVERHEAD CO COURTHOUSE ROOF,TENDOY ST	Beaverhead	Jan-84	Dec-86
001	0002	11101	Suspended Particulate (Tsp)	STEFANICH RANCH	Beaverhead	Jan-73	Dec-73
001	0002	12110	Cadmium (Tsp)	STEFANICH RANCH	Beaverhead	Jan-73	Dec-73
001	0002	12128	Lead (Tsp)	STEFANICH RANCH	Beaverhead	Jan-73	Dec-73
001	0002	12167	Zinc (Tsp)	STEFANICH RANCH	Beaverhead	Jan-73	Dec-73
001	0006	11101	Suspended Particulate (Tsp)	MONIOAR STAR ROUTE LIMA MT 59739	Beaverhead	Jan-81	Dec-82
003	0001	11101	Suspended Particulate (Tsp)	HARDIN MDU,NE CORNER OF ROOF,15 E 4TH ST	Big Horn	Jan-72	Dec-73
003	0001	12110	Cadmium (Tsp)	HARDIN MDU,NE CORNER OF ROOF,15 E 4TH ST	Big Horn	Jan-72	Dec-73
003	0001	12128	Lead (Tsp)	HARDIN MDU,NE CORNER OF ROOF,15 E 4TH ST	Big Horn	Jan-72	Dec-73
003	0001	12167	Zinc (Tsp)	HARDIN MDU,NE CORNER OF ROOF,15 E 4TH ST	Big Horn	Jan-72	Dec-73
003	0001	11103	Benzene Soluble Organics(Tsp)	HARDIN MDU,NE CORNER OF ROOF,15 E 4TH ST	Big Horn	Jan-72	Dec-73
003	0008	11101	Suspended Particulate (Tsp)	CARLAT RANCH	Big Horn	Jan-72	Dec-74
003	0008	12167	Zinc (Tsp)	CARLAT RANCH	Big Horn	Jan-72	Dec-74
003	0008	12110	Cadmium (Tsp)	CARLAT RANCH	Big Horn	Jan-72	Dec-74

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
003	0008	12128	Lead (Tsp)	CARLAT RANCH	Big Horn	Jan-72	Dec-74
003	0009	11101	Suspended Particulate (Tsp)	THOMAS RANCH (MORTON RESIDENCE), DECKER	Big Horn	Jan-74	Dec-81
003	0009	12306	Nitrate (Tsp)	THOMAS RANCH (MORTON RESIDENCE), DECKER	Big Horn	Jan-76	Dec-77
003	0009	12403	Sulfate (Tsp)	THOMAS RANCH (MORTON RESIDENCE), DECKER	Big Horn	Jan-76	Dec-77
003	0009	12306	Nitrate (Tsp)	THOMAS RANCH (MORTON RESIDENCE), DECKER	Big Horn	Jan-77	Dec-77
003	0010	11101	Suspended Particulate (Tsp)	WARREN RANCH, HARDIN MT	Big Horn	Jan-75	Dec-80
003	0011	11101	Suspended Particulate (Tsp)	DECKER COAL #1 DECKER MT	Big Horn	Jan-79	Jun-92
003	0011	81102	Pm10 Total 0-10um Stp	DECKER COAL #1 DECKER MT	Big Horn	Jul-92	Dec-97
003	0011	85101	Pm10 - Local Conditions	DECKER COAL #1 DECKER MT	Big Horn	Jan-98	NULL
003	0011	81102	Pm10 Total 0-10um Stp	DECKER COAL #1 DECKER MT	Big Horn	Jan-04	NULL
003	0012	11101	Suspended Particulate (Tsp)	DECKER COAL #2 DECKER MT	Big Horn	Jan-79	Apr-91
003	0012	64101	Barometric Pressure	DECKER COAL #2 DECKER MT	Big Horn	Jan-81	Dec-81
003	0012	65102	Rain/Melt Precipitation	DECKER COAL #2 DECKER MT	Big Horn	Jan-81	Dec-85
003	0012	62103	Dew Point	DECKER COAL #2 DECKER MT	Big Horn	Jan-81	Dec-82
003	0012	62101	Outdoor Temperature	DECKER COAL #2 DECKER MT	Big Horn	Jan-81	Jun-94
003	0013	11101	Suspended Particulate (Tsp)	DECKER COAL #3 DECKER MT	Big Horn	Jan-79	Jun-92

003	0013	81102	Pm10 Total 0-10um Stp	DECKER COAL #3 DECKER MT	Big Horn	Jun-92	Aug-93
003	0014	11101	Suspended Particulate (Tsp)	DECKER COAL #4 DECKER MT	Big Horn	Jan-79	May-92
003	0014	81102	Pm10 Total 0-10um Stp	DECKER COAL #4 DECKER MT	Big Horn	Jan-04	NULL
003	0014	85101	Pm10 - Local Conditions	DECKER COAL #4 DECKER MT	Big Horn	Jan-98	NULL
003	0014	81102	Pm10 Total 0-10um Stp	DECKER COAL #4 DECKER MT	Big Horn	Jun-92	Dec-97
003	0015	11101	Suspended Particulate (Tsp)	DECKER COAL #8, WIND STATION	Big Horn	Jan-79	Dec-81
003	0015	61101	Wind Speed	DECKER COAL #8, WIND STATION	Big Horn	Jan-80	Jun-94
003	0015	61102	Wind Direction	DECKER COAL #8, WIND STATION	Big Horn	Jan-80	Jun-94
003	0016	11101	Suspended Particulate (Tsp)	DECKER COAL #6 DECKER MT	Big Horn	Jan-82	Dec-83
003	0016	11101	Suspended Particulate (Tsp)	DECKER COAL #6 DECKER MT	Big Horn	Jan-82	Dec-82
003	0016	11101	Suspended Particulate (Tsp)	DECKER COAL #6 DECKER MT	Big Horn	Jan-79	Dec-82
003	0017	11101	Suspended Particulate (Tsp)	DECKER COAL #7 DECKER MT	Big Horn	Jan-79	Jun-92
003	0017	85101	Pm10 - Local Conditions	DECKER COAL #7 DECKER MT	Big Horn	Jan-98	NULL
003	0017	81102	Pm10 Total 0-10um Stp	DECKER COAL #7 DECKER MT	Big Horn	Jul-92	Dec-97
003	0017	81102	Pm10 Total 0-10um Stp	DECKER COAL #7 DECKER MT	Big Horn	Jan-04	NULL
003	0018	11101	Suspended Particulate (Tsp)	SPRING CREEK COAL, SITE #1, DECKER, MT	Big Horn	Jan-82	Jun-92
003	0018	65102	Rain/Melt Precipitation	SPRING CREEK COAL, SITE #1, DECKER, MT	Big Horn	Jan-85	Dec-85
003	0018	81102	Pm10 Total 0-10um Stp	SPRING CREEK COAL, SITE #1, DECKER, MT	Big Horn	Jan-04	NULL

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
003	0018	85101	Pm10 - Local Conditions	SPRING CREEK COAL, SITE #1, DECKER, MT	Big Horn	Jan-98	NULL
003	0018	81102	Pm10 Total 0-10um Stp	SPRING CREEK COAL, SITE #1, DECKER, MT	Big Horn	Jun-92	Dec-97
003	0018	62101	Outdoor Temperature	SPRING CREEK COAL, SITE #1, DECKER, MT	Big Horn	Jan-82	NULL
003	0018	61101	Wind Speed	SPRING CREEK COAL, SITE #1, DECKER, MT	Big Horn	Jan-82	NULL
003	0018	61102	Wind Direction	SPRING CREEK COAL, SITE #1, DECKER, MT	Big Horn	Jan-82	NULL
003	0018	61106	Std Dev Hz Wind Direction	SPRING CREEK COAL, SITE #1, DECKER, MT	Big Horn	Sep-93	NULL
003	0018	11101	Suspended Particulate (Tsp)	SPRING CREEK COAL, SITE #1, DECKER, MT	Big Horn	Jan-82	Dec-90
003	0019	11101	Suspended Particulate (Tsp)	SPRING CREEK #2 DECKER MT	Big Horn	Jan-82	Jun-92
003	0019	81102	Pm10 Total 0-10um Stp	SPRING CREEK #2 DECKER MT	Big Horn	Jan-04	NULL
003	0019	85101	Pm10 - Local Conditions	SPRING CREEK #2 DECKER MT	Big Horn	Jan-98	NULL
003	0019	81102	Pm10 Total 0-10um Stp	SPRING CREEK #2 DECKER MT	Big Horn	Jun-92	Dec-97
003	0020	11101	Suspended Particulate (Tsp)	SPRING CREEK #3 DECKER MT	Big Horn	Jan-82	Jun-92
003	0020	81102	Pm10 Total 0-10um Stp	SPRING CREEK #3 DECKER MT	Big Horn	Jun-92	Dec-97
003	0020	85101	Pm10 - Local Conditions	SPRING CREEK #3 DECKER MT	Big Horn	Jan-98	Mar-02
003	0021	11101	Suspended Particulate (Tsp)	DECKER COAL #5, DECKER, MT	Big Horn	Jan-82	Dec-83
003	0021	11101	Suspended Particulate (Tsp)	DECKER COAL #5, DECKER, MT	Big Horn	Jan-82	Dec-90

003	0021	81102	Pm10 Total 0-10um Stp	DECKER COAL #5, DECKER, MT	Big Horn	Jun-92	Dec-97
003	0021	85101	Pm10 - Local Conditions	DECKER COAL #5, DECKER, MT	Big Horn	Jan-98	NULL
003	0021	81102	Pm10 Total 0-10um Stp	DECKER COAL #5, DECKER, MT	Big Horn	Jan-04	NULL
003	0021	11101	Suspended Particulate (Tsp)	DECKER COAL #5, DECKER, MT	Big Horn	Jan-83	Jun-92
003	0022	81102	Pm10 Total 0-10um Stp	NINER RANCH, NORTH DECKER MINE	Big Horn	Sep-93	Dec-97
003	0022	85101	Pm10 - Local Conditions	NINER RANCH, NORTH DECKER MINE	Big Horn	Jan-98	Jul-01
003	0023	85101	Pm10 - Local Conditions	NORTH PIT	Big Horn	Jul-01	NULL
003	0023	81102	Pm10 Total 0-10um Stp	NORTH PIT	Big Horn	Jan-04	NULL
003	0025	11101	Suspended Particulate (Tsp)	WESTMORELAND,ABSALOKA MINE #2, HARDIN	Big Horn	Jan-80	Sep-91
003	0025	61102	Wind Direction	WESTMORELAND,ABSALOKA MINE #2, HARDIN	Big Horn	Jan-80	Dec-84
003	0025	62101	Outdoor Temperature	WESTMORELAND,ABSALOKA MINE #2, HARDIN	Big Horn	Apr-81	Dec-84
003	0025	61101	Wind Speed	WESTMORELAND,ABSALOKA MINE #2, HARDIN	Big Horn	Jan-80	Dec-84
003	0026	85101	Pm10 - Local Conditions	WEST NORTH WEST OF OFFICE	Big Horn	Mar-02	NULL
003	0026	81102	Pm10 Total 0-10um Stp	WEST NORTH WEST OF OFFICE	Big Horn	Jan-04	NULL
003	0027	11101	Suspended Particulate (Tsp)	WESTMORELAND,ABSALOKA MINE #3, HARDIN	Big Horn	Jan-80	Dec-83
003	0028	11101	Suspended Particulate (Tsp)	WESTMORELAND, ABSALOKA MINE #5, HARDIN	Big Horn	Jan-80	Sep-91
003	0028	85101	Pm10 - Local Conditions	WESTMORELAND, ABSALOKA MINE #5, HARDIN	Big Horn	Jan-98	Dec-98
003	0028	11101	Suspended Particulate (Tsp)	WESTMORELAND, ABSALOKA MINE #5, HARDIN	Big Horn	Jan-82	Dec-90

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
003	0028	81102	Pm10 Total 0-10um Stp	WESTMORELAND, ABSALOKA MINE #5, HARDIN	Big Horn	Oct-91	Dec-97
003	0029	11101	Suspended Particulate (Tsp)	WESTMORELAND, ABSALOKA MINE #6, HARDIN	Big Horn	Jan-80	Sep-91
003	0029	81102	Pm10 Total 0-10um Stp	WESTMORELAND, ABSALOKA MINE #6, HARDIN	Big Horn	Oct-91	Dec-94
003	0030	11101	Suspended Particulate (Tsp)	WESTMORELAND,ABSALOKA MINE #7, HARDIN	Big Horn	Jan-80	Dec-83
003	0031	81102	Pm10 Total 0-10um Stp	SAND ROCK, ABSALOKA MINE, 30 MI E HARDIN	Big Horn	Jan-95	Dec-97
003	0031	85101	Pm10 - Local Conditions	SAND ROCK, ABSALOKA MINE, 30 MI E HARDIN	Big Horn	Jan-98	Dec-98
003	0035	11101	Suspended Particulate (Tsp)	WESTMORELAND,ABSALOKA MINE #10, HARDIN	Big Horn	Jan-80	Dec-83
003	0036	11101	Suspended Particulate (Tsp)	WESTMORELAND, ABSALOKA MINE #7, HARDIN	Big Horn	Jan-83	Sep-91
003	0036	85101	Pm10 - Local Conditions	WESTMORELAND, ABSALOKA MINE #7, HARDIN	Big Horn	Jan-98	Dec-98
003	0036	81102	Pm10 Total 0-10um Stp	WESTMORELAND, ABSALOKA MINE #7, HARDIN	Big Horn	Oct-91	Dec-97
003	0037	61101	Wind Speed	.5 MILES NORTH OF INTEREST 90	Big Horn	May-02	Jun-03
003	0037	63301	Solar Radiation	.5 MILES NORTH OF INTEREST 90	Big Horn	May-02	Jun-03
003	0037	62101	Outdoor Temperature	.5 MILES NORTH OF INTEREST 90	Big Horn	May-02	Jun-03
003	0037	62101	Outdoor Temperature	.5 MILES NORTH OF INTEREST 90	Big Horn	May-02	Jun-03
003	0037	62106	Temperature Difference	.5 MILES NORTH OF INTEREST 90	Big Horn	May-02	Jun-03
003	0037	61106	Std Dev Hz Wind Direction	.5 MILES NORTH OF INTEREST 90	Big Horn	May-02	Jun-03

003	0037	61102	Wind Direction	.5 MILES NORTH OF INTEREST 90	Big Horn	May-02	Jun-03
003	0038	42401	Sulfur Dioxide	.5 MILES NORTH OF INTERSTATE 90	Big Horn	Apr-02	Jun-03
003	0038	81102	Pm10 Total 0-10um Stp	.5 MILES NORTH OF INTERSTATE 90	Big Horn	Apr-02	Jun-03
003	0038	85101	Pm10 - Local Conditions	.5 MILES NORTH OF INTERSTATE 90	Big Horn	Apr-02	Jun-03
003	0040	11101	Suspended Particulate (Tsp)	BUSBY MONTANA	Big Horn	Jan-84	Dec-88
003	0044	42410	Sulfation Rate	HARDIN - CROW #7	Big Horn	Dec-86	Dec-88
003	0046	61101	Wind Speed	DECKER WEST, WEST DECKER MINE	Big Horn	Jul-94	NULL
003	0046	62101	Outdoor Temperature	DECKER WEST, WEST DECKER MINE	Big Horn	Jul-94	NULL
003	0046	61102	Wind Direction	DECKER WEST, WEST DECKER MINE	Big Horn	Jul-94	NULL
003	0046	61106	Std Dev Hz Wind Direction	DECKER WEST, WEST DECKER MINE	Big Horn	Jul-94	NULL
007	0001	11101	Suspended Particulate (Tsp)	CONTINENTAL LIME,INDIAN CREEK #7	Broadwater	Jan-83	Dec-83
007	0004	11101	Suspended Particulate (Tsp)	INDIAN CREEK MET STATION, TOWNSEND	Broadwater	Jan-83	Dec-84
007	0004	61101	Wind Speed	INDIAN CREEK MET STATION, TOWNSEND	Broadwater	Sep-90	Dec-98
007	0004	61106	Std Dev Hz Wind Direction	INDIAN CREEK MET STATION, TOWNSEND	Broadwater	Sep-90	Dec-98
007	0004	62101	Outdoor Temperature	INDIAN CREEK MET STATION, TOWNSEND	Broadwater	Sep-90	Dec-98
007	0004	61102	Wind Direction	INDIAN CREEK MET STATION, TOWNSEND	Broadwater	Sep-90	Dec-98
007	0004	11101	Suspended Particulate (Tsp)	INDIAN CREEK MET STATION, TOWNSEND	Broadwater	Jan-83	Dec-84
007	0005	11101	Suspended Particulate (Tsp)	CONTINENTAL LIME,INDIAN CREEK #4	Broadwater	Jan-83	Dec-84

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
007	0008	81102	Pm10 Total 0-10um Stp	CONTINENTAL LIME-INDIAN CREEK #1-LANDFIL	Broadwater	Oct-89	Dec-96
007	0009	81102	Pm10 Total 0-10um Stp	CONTINENTAL LIME-INDIAN CRK #2-HILLSIDE	Broadwater	Oct-89	Dec-97
007	0009	85101	Pm10 - Local Conditions	CONTINENTAL LIME-INDIAN CRK #2-HILLSIDE	Broadwater	Jan-98	Dec-98
007	0010	81102	Pm10 Total 0-10um Stp	CONTINENTAL LIME-INDIAN CRK #3-QUARRY	Broadwater	Oct-89	Apr-95
007	0011	61101	Wind Speed	PEGASUS GOLD-DIAMOND HILL SITE #1	Broadwater	Sep-89	Nov-90
007	0011	62101	Outdoor Temperature	PEGASUS GOLD-DIAMOND HILL SITE #1	Broadwater	Sep-89	Nov-90
007	0011	82103	Arsenic (Pm10) Stp	PEGASUS GOLD-DIAMOND HILL SITE #1	Broadwater	Jan-90	Nov-90
007	0011	82112	Chromium (Pm10) Stp	PEGASUS GOLD-DIAMOND HILL SITE #1	Broadwater	Jan-90	Nov-90
007	0011	82167	Zinc (Pm10) Stp	PEGASUS GOLD-DIAMOND HILL SITE #1	Broadwater	Jan-90	Nov-90
007	0011	82128	Lead (Pm10) Stp	PEGASUS GOLD-DIAMOND HILL SITE #1	Broadwater	Jan-90	Nov-90
007	0011	82110	Cadmium (Pm10) Stp	PEGASUS GOLD-DIAMOND HILL SITE #1	Broadwater	Jan-90	Nov-90
007	0011	81102	Pm10 Total 0-10um Stp	PEGASUS GOLD-DIAMOND HILL SITE #1	Broadwater	Sep-89	Nov-90
007	0011	61102	Wind Direction	PEGASUS GOLD-DIAMOND HILL SITE #1	Broadwater	Sep-89	Nov-90
007	0011	61106	Std Dev Hz Wind Direction	PEGASUS GOLD-DIAMOND HILL SITE #1	Broadwater	Sep-89	Nov-90
007	0012	61101	Wind Speed	PEGASUS GOLD-DIAMOND HILL SITE #2	Broadwater	Sep-89	Aug-90
007	0012	61102	Wind Direction	PEGASUS GOLD-DIAMOND HILL SITE #2	Broadwater	Sep-89	Aug-90

007	0012	62101	Outdoor Temperature	PEGASUS GOLD-DIAMOND HILL SITE #2	Broadwater	Oct-89	Jun-90
007	0012	61106	Std Dev Hz Wind Direction	PEGASUS GOLD-DIAMOND HILL SITE #2	Broadwater	Sep-89	Aug-90
007	0013	42401	Sulfur Dioxide	CONTINENTAL LIME-INDIAN CREEK #5,TOWNSND	Broadwater	Apr-93	Sep-96
007	0014	81102	Pm10 Total 0-10um Stp	WHITE PINE GULCH;4 MI W OFF RT 12/287	Broadwater	Apr-95	Dec-97
007	0014	85101	Pm10 - Local Conditions	WHITE PINE GULCH;4 MI W OFF RT 12/287	Broadwater	Jan-98	Dec-98
007	0015	81102	Pm10 Total 0-10um Stp	DIAMOND HILL MINE;7 MILES W OF TOWNSEND	Broadwater	Nov-96	Dec-97
007	0015	82128	Lead (Pm10) Stp	DIAMOND HILL MINE;7 MILES W OF TOWNSEND	Broadwater	Nov-96	Feb-98
007	0015	85101	Pm10 - Local Conditions	DIAMOND HILL MINE;7 MILES W OF TOWNSEND	Broadwater	Jan-98	Apr-01
007	0015	82167	Zinc (Pm10) Stp	DIAMOND HILL MINE;7 MILES W OF TOWNSEND	Broadwater	Nov-96	Feb-98
007	0015	82112	Chromium (Pm10) Stp	DIAMOND HILL MINE;7 MILES W OF TOWNSEND	Broadwater	Nov-96	Feb-98
007	0015	82103	Arsenic (Pm10) Stp	DIAMOND HILL MINE;7 MILES W OF TOWNSEND	Broadwater	Nov-96	Feb-98
007	0015	82110	Cadmium (Pm10) Stp	DIAMOND HILL MINE;7 MILES W OF TOWNSEND	Broadwater	Nov-96	Feb-98
011	0001	11101	Suspended Particulate (Tsp)	CARTER SITE NEAR EKALAKA	Carter	Jan-74	Dec-77
011	0002	11101	Suspended Particulate (Tsp)	KEN HUTTON RESIDENCE EKALAKA,MONTANA	Carter	Jan-77	Dec-77
011	0002	12403	Sulfate (Tsp)	KEN HUTTON RESIDENCE EKALAKA,MONTANA	Carter	Jan-77	Dec-77
011	0002	12306	Nitrate (Tsp)	KEN HUTTON RESIDENCE EKALAKA,MONTANA	Carter	Jan-77	Dec-77
011	0002	12306	Nitrate (Tsp)	KEN HUTTON RESIDENCE EKALAKA,MONTANA	Carter	Jan-77	Dec-77
013	0001	42101	Carbon Monoxide	NW CORNER 10AVE S/2ND ST INTERSECTION	Cascade	Jul-01	NULL

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
013	0007	11101	Suspended Particulate (Tsp)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	Cascade	Jan-71	Dec-81
013	0007	42410	Sulfation Rate	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	Cascade	Jan-78	Dec-80
013	0007	12110	Cadmium (Tsp)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	Cascade	Jan-72	Dec-72
013	0007	12128	Lead (Tsp)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	Cascade	Jan-71	Dec-72
013	0007	12167	Zinc (Tsp)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	Cascade	Jan-72	Dec-72
013	0007	42401	Sulfur Dioxide	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	Cascade	Jan-75	Dec-75
013	0007	21101	Total Dustfall (Sp)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	Cascade	Jan-78	Dec-81
013	0007	12103	Arsenic (Tsp)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	Cascade	Jan-71	Dec-72
013	0007	11103	Benzene Soluble Organics(Tsp)	CITY-COUNTY HOSPITAL,1130 17TH AVE SO	Cascade	Jan-71	Dec-72
013	0009	11101	Suspended Particulate (Tsp)	FIRE STATION, 9TH ST & 1ST AVE SOUTH	Cascade	Jan-73	Oct-89
013	0009	12403	Sulfate (Tsp)	FIRE STATION, 9TH ST & 1ST AVE SOUTH	Cascade	Jan-78	Dec-82
013	0009	21101	Total Dustfall (Sp)	FIRE STATION, 9TH ST & 1ST AVE SOUTH	Cascade	Jan-78	Dec-81
013	0009	81102	Pm10 Total 0-10um Stp	FIRE STATION, 9TH ST & 1ST AVE SOUTH	Cascade	Jul-88	Sep-97
013	0009	81102	Pm10 Total 0-10um Stp	FIRE STATION, 9TH ST & 1ST AVE SOUTH	Cascade	Oct-89	Dec-90
013	0009	42410	Sulfation Rate	FIRE STATION, 9TH ST & 1ST AVE SOUTH	Cascade	Jan-78	Dec-80
013	0009	11101	Suspended Particulate (Tsp)	FIRE STATION, 9TH ST & 1ST AVE SOUTH	Cascade	Jul-88	Oct-89

013	0009	12306	Nitrate (Tsp)	FIRE STATION, 9TH ST & 1ST AVE SOUTH	Cascade	Jan-78	Dec-82
013	0015	11101	Suspended Particulate (Tsp)	10TH AVE SOUTH & 9TH STREET	Cascade	Jan-77	Dec-78
013	0015	21101	Total Dustfall (Sp)	10TH AVE SOUTH & 9TH STREET	Cascade	Jan-78	Dec-79
013	0015	42101	Carbon Monoxide	10TH AVE SOUTH & 9TH STREET	Cascade	Jan-77	Dec-79
013	0015	42410	Sulfation Rate	10TH AVE SOUTH & 9TH STREET	Cascade	Jan-78	Dec-78
013	0015	12306	Nitrate (Tsp)	10TH AVE SOUTH & 9TH STREET	Cascade	Jan-78	Dec-78
013	0015	12403	Sulfate (Tsp)	10TH AVE SOUTH & 9TH STREET	Cascade	Jan-78	Dec-78
013	0016	11101	Suspended Particulate (Tsp)	1100 SMELTER AVE (BLACK EAGLE)	Cascade	Jan-71	Oct-73
013	0016	12103	Arsenic (Tsp)	1100 SMELTER AVE (BLACK EAGLE)	Cascade	Jan-71	Dec-72
013	0016	12128	Lead (Tsp)	1100 SMELTER AVE (BLACK EAGLE)	Cascade	Jan-71	Dec-72
013	0016	12167	Zinc (Tsp)	1100 SMELTER AVE (BLACK EAGLE)	Cascade	Jan-71	Dec-72
013	0016	12110	Cadmium (Tsp)	1100 SMELTER AVE (BLACK EAGLE)	Cascade	Jan-71	Dec-72
013	0016	11103	Benzene Soluble Organics(Tsp)	1100 SMELTER AVE (BLACK EAGLE)	Cascade	Jan-71	Dec-72
013	0017	11101	Suspended Particulate (Tsp)	DOWNTOWN, 301 2ND AVE NORTH	Cascade	Jun-80	Jul-90
013	0017	81102	Pm10 Total 0-10um Stp	DOWNTOWN, 301 2ND AVE NORTH	Cascade	Jan-85	Dec-87
013	0017	81102	Pm10 Total 0-10um Stp	DOWNTOWN, 301 2ND AVE NORTH	Cascade	Mar-87	Dec-88
013	0017	12403	Sulfate (Tsp)	DOWNTOWN, 301 2ND AVE NORTH	Cascade	Jan-82	Dec-82
013	0017	12306	Nitrate (Tsp)	DOWNTOWN, 301 2ND AVE NORTH	Cascade	Jan-82	Dec-82

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
013	0017	12306	Nitrate (Tsp)	DOWNTOWN, 301 2ND AVE NORTH	Cascade	Jan-82	Dec-82
013	0017	12403	Sulfate (Tsp)	DOWNTOWN, 301 2ND AVE NORTH	Cascade	Jan-82	Dec-82
013	0017	11101	Suspended Particulate (Tsp)	DOWNTOWN, 301 2ND AVE NORTH	Cascade	Jun-80	Dec-88
013	0018	42401	Sulfur Dioxide	FLEET, 1101 SMELTER AVE	Cascade	Jan-72	Dec-72
013	0021	42101	Carbon Monoxide	GREAT FALLS FEDERAL, 2425 10TH AVE SOUTH	Cascade	Jan-80	Dec-83
013	0021	61102	Wind Direction	GREAT FALLS FEDERAL, 2425 10TH AVE SOUTH	Cascade	Jan-83	Dec-83
013	0021	61101	Wind Speed	GREAT FALLS FEDERAL, 2425 10TH AVE SOUTH	Cascade	Jan-83	Dec-83
013	0022	11101	Suspended Particulate (Tsp)	FRANKLIN SCHOOL, 813 SECOND AVE SW	Cascade	Jan-83	Dec-84
013	0023	42401	Sulfur Dioxide	RIVER ROAD & GIANT SPRINGS JUNCTION	Cascade	Jan-73	Dec-73
013	0024	42401	Sulfur Dioxide	G F SPEEDWAY CLUBHOUSE (GREAT FALLS)	Cascade	Jan-72	Dec-73
013	0027	11101	Suspended Particulate (Tsp)	BUILDING SUPPLY BELT, MT	Cascade	Jan-73	Dec-75
013	0028	11101	Suspended Particulate (Tsp)	BLACKEAGLE POST OFFICE, 1321 SMELTER AVE	Cascade	Jan-74	Dec-75
013	0302	11101	Suspended Particulate (Tsp)	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	42401	Sulfur Dioxide	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	42602	Nitrogen Dioxide	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	64101	Barometric Pressure	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81

013	0302	63301	Solar Radiation	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	62106	Temperature Difference	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-81	Dec-81
013	0302	62106	Temperature Difference	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-81	Dec-81
013	0302	62101	Outdoor Temperature	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-81	Dec-81
013	0302	61102	Wind Direction	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	61102	Wind Direction	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	61102	Wind Direction	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	61101	Wind Speed	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	61101	Wind Speed	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	61101	Wind Speed	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	44201	Ozone	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	42603	Oxides Of Nitrogen	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	42601	Nitric Oxide	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	42101	Carbon Monoxide	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	11203	Light Scatter	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	12105	Beryllium (Tsp)	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	12403	Sulfate (Tsp)	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013	0302	12167	Zinc (Tsp)	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
013 0302	11101 Suspended Particulate (Tsp)	RESOURCE 89-SALEM PROJECT, N GREATFALLS	Cascade	Jan-80	Dec-81
013 1016	11101 Suspended Particulate (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-82
013 1016	61102 Wind Direction	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-80	Dec-80
013 1016	61101 Wind Speed	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-80	Dec-80
013 1016	42602 Nitrogen Dioxide	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-79	Dec-80
013 1016	42401 Sulfur Dioxide	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-79	Dec-80
013 1016	12403 Sulfate (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-80
013 1016	12306 Nitrate (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-80
013 1016	12167 Zinc (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-79
013 1016	12164 Vanadium (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-79	Dec-80
013 1016	12136 Nickel (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-80
013 1016	12132 Manganese (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-80
013 1016	12110 Cadmium (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-80
013 1016	12112 Chromium (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-79	Dec-80
013 1016	12114 Copper (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-80
013 1016	12128 Lead (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-80

013	1016	12126	Iron (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-79
013	1016	12103	Arsenic (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-80
013	1016	12101	Aluminum (Tsp)	KIWANIS PARK (MAPS STUDY)	Cascade	Jan-78	Dec-79
013	1018	11101	Suspended Particulate (Tsp)	RIVERVIEW SCHOOL, 100 SMELTER AVE	Cascade	Jan-80	Dec-82
013	1019	11101	Suspended Particulate (Tsp)	1321 SMELTER AVE BLACK EAGLE	Cascade	Jan-80	Dec-87
013	1019	12136	Nickel (Tsp)	1321 SMELTER AVE BLACK EAGLE	Cascade	Jan-80	Dec-80
013	1019	12164	Vanadium (Tsp)	1321 SMELTER AVE BLACK EAGLE	Cascade	Jan-80	Dec-80
013	1019	12403	Sulfate (Tsp)	1321 SMELTER AVE BLACK EAGLE	Cascade	Jan-80	Dec-82
013	1019	12306	Nitrate (Tsp)	1321 SMELTER AVE BLACK EAGLE	Cascade	Jan-80	Dec-82
013	1019	12103	Arsenic (Tsp)	1321 SMELTER AVE BLACK EAGLE	Cascade	Jan-80	Dec-80
013	1019	12112	Chromium (Tsp)	1321 SMELTER AVE BLACK EAGLE	Cascade	Jan-80	Dec-80
013	1020	11101	Suspended Particulate (Tsp)	LINCOLN SCHOOL, 3625 27TH SOUTH	Cascade	Jan-80	Dec-82
013	1023	42101	Carbon Monoxide	PARDIS CLINIC, 826 10TH AVE SOUTH	Cascade	Nov-83	Oct-89
013	1023	61101	Wind Speed	PARDIS CLINIC, 826 10TH AVE SOUTH	Cascade	Nov-83	Oct-89
013	1023	61102	Wind Direction	PARDIS CLINIC, 826 10TH AVE SOUTH	Cascade	Nov-83	Oct-89
013	1024	11101	Suspended Particulate (Tsp)	SUNNYSIDE SCHOOL, 1800 - 19TH AVE SOUTH	Cascade	Jan-87	Feb-90
013	1025	42101	Carbon Monoxide	SKYWAY CONOCO, 700-10TH AVE SOUTH	Cascade	Oct-89	Jun-01
013	1025	61102	Wind Direction	SKYWAY CONOCO, 700-10TH AVE SOUTH	Cascade	Nov-89	Oct-95

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
013	1025	61106	Std Dev Hz Wind Direction	SKYWAY CONOCO, 700-10TH AVE SOUTH	Cascade	Oct-90	Oct-95
013	1025	61101	Wind Speed	SKYWAY CONOCO, 700-10TH AVE SOUTH	Cascade	Nov-89	Oct-95
013	1026	68101	Sample Flow Rate- Cv	GT FALLS HIGHSCHOOL CRN 3RD S & 17TH E	Cascade	Jan-00	NULL
013	1026	68104	Ambient Max Temperature	GT FALLS HIGHSCHOOL CRN 3RD S & 17TH E	Cascade	Jan-00	NULL
013	1026	68105	Ambient Avg Temperature	GT FALLS HIGHSCHOOL CRN 3RD S & 17TH E	Cascade	Jan-00	NULL
013	1026	68107	Sample Max Baro Pressure	GT FALLS HIGHSCHOOL CRN 3RD S & 17TH E	Cascade	Jan-00	NULL
013	1026	68109	Elapsed Sample Time	GT FALLS HIGHSCHOOL CRN 3RD S & 17TH E	Cascade	Jan-00	NULL
013	1026	88101	Pm2.5 - Local Conditions	GT FALLS HIGHSCHOOL CRN 3RD S & 17TH E	Cascade	Jan-00	NULL
013	1026	68108	Sample Avg Baro Pressure	GT FALLS HIGHSCHOOL CRN 3RD S & 17TH E	Cascade	Jan-00	NULL
013	1026	68106	Sample Min Baro Pressure	GT FALLS HIGHSCHOOL CRN 3RD S & 17TH E	Cascade	Jan-00	NULL
013	1026	68102	Sample Volume	GT FALLS HIGHSCHOOL CRN 3RD S & 17TH E	Cascade	Jan-00	NULL
013	1026	68103	Ambient Min Temperature	GT FALLS HIGHSCHOOL CRN 3RD S & 17TH E	Cascade	Jan-00	NULL
013	2000	42401	Sulfur Dioxide	WIRE MILL RD/MT REFINING/.6MI E OF HAVRE	Cascade	Nov-94	Apr-00
013	2000	61106	Std Dev Hz Wind Direction	WIRE MILL RD/MT REFINING/.6MI E OF HAVRE	Cascade	Nov-94	Apr-00
013	2000	61101	Wind Speed	WIRE MILL RD/MT REFINING/.6MI E OF HAVRE	Cascade	Nov-94	Apr-00
013	2000	61102	Wind Direction	WIRE MILL RD/MT REFINING/.6MI E OF HAVRE	Cascade	Nov-94	Apr-00

013	2001	42401	Sulfur Dioxide	1301 27TH AVE NE BLACK EAGLE RACE TRACK	Cascade	Apr-00	Apr-00
013	2001	61106	Std Dev Hz Wind Direction	1301 27TH AVE NE BLACK EAGLE RACE TRACK	Cascade	May-00	NULL
013	2001	61101	Wind Speed	1301 27TH AVE NE BLACK EAGLE RACE TRACK	Cascade	Apr-00	Apr-00
013	2001	61102	Wind Direction	1301 27TH AVE NE BLACK EAGLE RACE TRACK	Cascade	Apr-00	Apr-00
013	2001	61102	Wind Direction	1301 27TH AVE NE BLACK EAGLE RACE TRACK	Cascade	May-00	NULL
013	2001	61106	Std Dev Hz Wind Direction	1301 27TH AVE NE BLACK EAGLE RACE TRACK	Cascade	Apr-00	Apr-00
013	2001	61101	Wind Speed	1301 27TH AVE NE BLACK EAGLE RACE TRACK	Cascade	May-00	NULL
013	2001	42401	Sulfur Dioxide	1301 27TH AVE NE BLACK EAGLE RACE TRACK	Cascade	May-00	NULL
017	0001	11101	Suspended Particulate (Tsp)	MAIN AND HAYES	Custer	Jan-72	Dec-73
017	0001	12110	Cadmium (Tsp)	MAIN AND HAYES	Custer	Jan-72	Dec-73
017	0001	12167	Zinc (Tsp)	MAIN AND HAYES	Custer	Jan-72	Dec-73
017	0001	12128	Lead (Tsp)	MAIN AND HAYES	Custer	Jan-72	Dec-73
017	0001	11103	Benzene Soluble Organics(Tsp)	MAIN AND HAYES	Custer	Jan-72	Dec-73
017	0003	11101	Suspended Particulate (Tsp)	PCA BUILDING, MAIN & HAYES	Custer	Jan-80	Dec-83
017	0004	11101	Suspended Particulate (Tsp)	LITTLEFIELD HILLTOP	Custer	Jan-76	Dec-78
019	0001	11101	Suspended Particulate (Tsp)	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-75	Dec-85
019	0001	42410	Sulfation Rate	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-84	Dec-85
019	0001	61101	Wind Speed	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-79	Dec-83

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
019 0001	64101 Barometric Pressure	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-79	Dec-81
019 0001	63301 Solar Radiation	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-79	Dec-80
019 0001	63301 Solar Radiation	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-79	Dec-79
019 0001	63301 Solar Radiation	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-79	Dec-80
019 0001	63301 Solar Radiation	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-80	Dec-81
019 0001	63301 Solar Radiation	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-80	Dec-82
019 0001	63301 Solar Radiation	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-80	Dec-83
019 0001	62103 Dew Point	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-78	Dec-79
019 0001	62101 Outdoor Temperature	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-78	Dec-83
019 0001	61102 Wind Direction	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-79	Dec-83
019 0001	42602 Nitrogen Dioxide	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-76	Dec-79
019 0001	42410 Sulfation Rate	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-84	Dec-87
019 0001	12306 Nitrate (Tsp)	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-79	Dec-84
019 0001	12403 Sulfate (Tsp)	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-79	Dec-84
019 0001	42401 Sulfur Dioxide	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-76	Dec-79
019 0001	42401 Sulfur Dioxide	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-79	Dec-85

019	0001	11203	Light Scatter	SCOBEY BORDER #1, PORT OF ENTRY, SCOBEY	Daniels	Jan-79	Dec-83
019	0002	11101	Suspended Particulate (Tsp)	RICHARDSON RES. 1 MILE N OF SCOBEY MT	Daniels	Jan-77	Dec-85
019	0002	42410	Sulfation Rate	RICHARDSON RES. 1 MILE N OF SCOBEY MT	Daniels	Jan-84	Jan-91
019	0002	42410	Sulfation Rate	RICHARDSON RES. 1 MILE N OF SCOBEY MT	Daniels	Jan-84	Dec-85
019	0002	61101	Wind Speed	RICHARDSON RES. 1 MILE N OF SCOBEY MT	Daniels	Jan-79	Dec-79
019	0002	62101	Outdoor Temperature	RICHARDSON RES. 1 MILE N OF SCOBEY MT	Daniels	Jan-78	Dec-79
019	0002	61102	Wind Direction	RICHARDSON RES. 1 MILE N OF SCOBEY MT	Daniels	Jan-79	Dec-79
019	0002	12403	Sulfate (Tsp)	RICHARDSON RES. 1 MILE N OF SCOBEY MT	Daniels	Jan-79	Dec-84
019	0002	12306	Nitrate (Tsp)	RICHARDSON RES. 1 MILE N OF SCOBEY MT	Daniels	Jan-79	Dec-84
019	0003	11101	Suspended Particulate (Tsp)	ENGBERG RANCH,SCOBEY,MONTANA	Daniels	Jan-77	Dec-80
019	0003	12403	Sulfate (Tsp)	ENGBERG RANCH,SCOBEY,MONTANA	Daniels	Jan-79	Dec-80
019	0003	12306	Nitrate (Tsp)	ENGBERG RANCH,SCOBEY,MONTANA	Daniels	Jan-79	Dec-80
019	0004	11101	Suspended Particulate (Tsp)	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	Daniels	Jan-80	Dec-85
019	0004	42410	Sulfation Rate	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	Daniels	Jan-84	Dec-87
019	0004	61101	Wind Speed	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	Daniels	Jan-81	Dec-85
019	0004	62101	Outdoor Temperature	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	Daniels	Jan-84	Dec-85
019	0004	61102	Wind Direction	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	Daniels	Jan-80	Dec-85
019	0004	42410	Sulfation Rate	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	Daniels	Jan-84	Dec-87

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
019	0004	42401	Sulfur Dioxide	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	Daniels	Jan-80	Dec-85
019	0004	12306	Nitrate (Tsp)	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	Daniels	Jan-80	Dec-84
019	0004	12403	Sulfate (Tsp)	HANRAHAN RANCH, 5.5 MI WEST OF WHITETAIL	Daniels	Jan-80	Dec-84
019	0005	42410	Sulfation Rate	#3 MICROWAVE TOWER WHITETAIL MT	Daniels	Jan-84	Dec-86
019	0005	42410	Sulfation Rate	#3 MICROWAVE TOWER WHITETAIL MT	Daniels	Jan-84	Dec-85
019	0006	42410	Sulfation Rate	FLAXVILLE, WILSON ST & 2ND AVE	Daniels	Jan-84	Jan-91
019	0006	42410	Sulfation Rate	FLAXVILLE, WILSON ST & 2ND AVE	Daniels	Jan-84	Dec-85
019	0007	42410	Sulfation Rate	#6 TV TOWER HILL SCOBEY MT	Daniels	Jan-84	Jan-91
019	0007	42410	Sulfation Rate	#6 TV TOWER HILL SCOBEY MT	Daniels	Jan-84	Dec-85
019	0008	42410	Sulfation Rate	SCOBEY DOWNTOWN	Daniels	Jan-84	Jan-91
019	0008	42410	Sulfation Rate	SCOBEY DOWNTOWN	Daniels	Jan-84	Dec-85
019	0009	42410	Sulfation Rate	FOUR BUTTES, NORTH OF RTE 248 NEAR SCOBE	Daniels	Jan-84	Jan-91
019	0009	42410	Sulfation Rate	FOUR BUTTES, NORTH OF RTE 248 NEAR SCOBE	Daniels	Jan-84	Dec-85
019	0010	11101	Suspended Particulate (Tsp)	MARLENEE RANCH, SCOBEY MT	Daniels	Jan-86	Dec-87
019	0010	61101	Wind Speed	MARLENEE RANCH, SCOBEY MT	Daniels	Oct-86	Dec-87
019	0010	61102	Wind Direction	MARLENEE RANCH, SCOBEY MT	Daniels	Oct-86	Dec-87

019	0010	62101	Outdoor Temperature	MARLENEE RANCH, SCOBEY MT	Daniels	Oct-86	Dec-87
019	0010	42401	Sulfur Dioxide	MARLENEE RANCH, SCOBEY MT	Daniels	Jan-76	Dec-87
021	0001	11101	Suspended Particulate (Tsp)	GLENDIVE MICROWAVE,BURMAN RANCH	Dawson	Jan-74	Dec-78
021	0001	61101	Wind Speed	GLENDIVE MICROWAVE,BURMAN RANCH	Dawson	Jan-76	Dec-76
021	0001	61102	Wind Direction	GLENDIVE MICROWAVE,BURMAN RANCH	Dawson	Jan-76	Dec-76
021	0002	11101	Suspended Particulate (Tsp)	MAGELSKY (LINDSAY)	Dawson	Jan-74	Dec-77
021	0002	12306	Nitrate (Tsp)	MAGELSKY (LINDSAY)	Dawson	Jan-76	Dec-76
021	0002	12403	Sulfate (Tsp)	MAGELSKY (LINDSAY)	Dawson	Jan-76	Dec-77
021	0002	12306	Nitrate (Tsp)	MAGELSKY (LINDSAY)	Dawson	Jan-77	Dec-77
021	0003	11101	Suspended Particulate (Tsp)	MAGELSKY (LINDSAY)	Dawson	Jan-74	Dec-78
021	0003	12403	Sulfate (Tsp)	MAGELSKY (LINDSAY)	Dawson	Jan-76	Dec-77
021	0003	12306	Nitrate (Tsp)	MAGELSKY (LINDSAY)	Dawson	Jan-77	Dec-77
021	0003	12306	Nitrate (Tsp)	MAGELSKY (LINDSAY)	Dawson	Jan-76	Dec-76
021	0004	11101	Suspended Particulate (Tsp)	KVGN TV TOWER	Dawson	Jan-78	Dec-82
021	0004	61102	Wind Direction	KVGN TV TOWER	Dawson	Jan-74	Jun-85
021	0004	61101	Wind Speed	KVGN TV TOWER	Dawson	Jan-74	Jun-85
021	1001	11101	Suspended Particulate (Tsp)	DAWSON COMMUNITY COLLEGE S OF GLENDIVE	Dawson	Jan-80	Dec-82
021	1002	11101	Suspended Particulate (Tsp)	MEDICAL ARTS CENTER, OILWORTH & AMES	Dawson	Jan-82	Dec-84

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
023 0001	11101 Suspended Particulate (Tsp)	S&N CEMENT EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-72
023 0001	12128 Lead (Tsp)	S&N CEMENT EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-71
023 0001	12167 Zinc (Tsp)	S&N CEMENT EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-71
023 0001	12110 Cadmium (Tsp)	S&N CEMENT EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-71
023 0001	11103 Benzene Soluble Organics(Tsp)	S&N CEMENT EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-72
023 0001	12103 Arsenic (Tsp)	S&N CEMENT EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-71
023 0003	11101 Suspended Particulate (Tsp)	KUCERA RESIDENCE MILL CREEK	Deer Lodge	Jan-72	Dec-73
023 0003	12128 Lead (Tsp)	KUCERA RESIDENCE MILL CREEK	Deer Lodge	Jan-72	Dec-72
023 0003	12167 Zinc (Tsp)	KUCERA RESIDENCE MILL CREEK	Deer Lodge	Jan-72	Dec-72
023 0003	42401 Sulfur Dioxide	KUCERA RESIDENCE MILL CREEK	Deer Lodge	Jan-72	Dec-73
023 0003	12103 Arsenic (Tsp)	KUCERA RESIDENCE MILL CREEK	Deer Lodge	Jan-72	Dec-72
023 0003	12110 Cadmium (Tsp)	KUCERA RESIDENCE MILL CREEK	Deer Lodge	Jan-72	Dec-72
023 0004	11101 Suspended Particulate (Tsp)	HIWAY JUNCTION	Deer Lodge	Jan-75	Dec-87
023 0004	12132 Manganese (Tsp)	HIWAY JUNCTION	Deer Lodge	Jan-78	Dec-80
023 0004	61101 Wind Speed	HIWAY JUNCTION	Deer Lodge	Jan-78	Dec-79
023 0004	61101 Wind Speed	HIWAY JUNCTION	Deer Lodge	Jan-76	Dec-79

023	0004	42401	Sulfur Dioxide	HIWAY JUNCTION		Deer Lodge	Jan-72	Aug-79
023	0004	12403	Sulfate (Tsp)	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-78
023	0004	12403	Sulfate (Tsp)	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-80
023	0004	12306	Nitrate (Tsp)	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-80
023	0004	12167	Zinc (Tsp)	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-85
023	0004	12164	Vanadium (Tsp)	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-80
023	0004	12136	Nickel (Tsp)	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-80
023	0004	61102	Wind Direction	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-79
023	0004	61102	Wind Direction	HIWAY JUNCTION		Deer Lodge	Jan-76	Dec-79
023	0004	12128	Lead (Tsp)	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-85
023	0004	12103	Arsenic (Tsp)	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-87
023	0004	12112	Chromium (Tsp)	HIWAY JUNCTION		Deer Lodge	Jul-78	Dec-85
023	0004	12114	Copper (Tsp)	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-85
023	0004	12126	Iron (Tsp)	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-79
023	0004	12110	Cadmium (Tsp)	HIWAY JUNCTION		Deer Lodge	Feb-77	Dec-85
023	0004	12101	Aluminum (Tsp)	HIWAY JUNCTION		Deer Lodge	Jan-78	Dec-85
023	0005	11101	Suspended Particulate (Tsp)	ANACONDA JR HI MAIN	CORNER OF 4TH AND	Deer Lodge	Jan-71	Dec-72
023	0005	12110	Cadmium (Tsp)	ANACONDA JR HI MAIN	CORNER OF 4TH AND	Deer Lodge	Jan-71	Dec-72

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
023 0005 12167	Zinc (Tsp)	ANACONDA JR HI CORNER OF 4TH AND MAIN	Deer Lodge	Jan-71	Dec-72
023 0005 12209	Fluoride (Paper Samplers)	ANACONDA JR HI CORNER OF 4TH AND MAIN	Deer Lodge	Jan-71	Dec-71
023 0005 12403	Sulfate (Tsp)	ANACONDA JR HI CORNER OF 4TH AND MAIN	Deer Lodge	Jan-71	Dec-71
023 0005 12202	Fluoride(Tsp)	ANACONDA JR HI CORNER OF 4TH AND MAIN	Deer Lodge	Jan-71	Dec-71
023 0005 12128	Lead (Tsp)	ANACONDA JR HI CORNER OF 4TH AND MAIN	Deer Lodge	Jan-71	Dec-72
023 0005 11103	Benzene Soluble Organics(Tsp)	ANACONDA JR HI CORNER OF 4TH AND MAIN	Deer Lodge	Jan-71	Dec-71
023 0005 12103	Arsenic (Tsp)	ANACONDA JR HI CORNER OF 4TH AND MAIN	Deer Lodge	Jan-71	Dec-72
023 0006 11101	Suspended Particulate (Tsp)	KIRKEBY RESIDENCE, 1200 E 6TH	Deer Lodge	Jan-72	Dec-72
023 0006 12167	Zinc (Tsp)	KIRKEBY RESIDENCE, 1200 E 6TH	Deer Lodge	Jan-72	Dec-72
023 0006 12128	Lead (Tsp)	KIRKEBY RESIDENCE, 1200 E 6TH	Deer Lodge	Jan-72	Dec-72
023 0006 12103	Arsenic (Tsp)	KIRKEBY RESIDENCE, 1200 E 6TH	Deer Lodge	Jan-72	Dec-72
023 0006 12110	Cadmium (Tsp)	KIRKEBY RESIDENCE, 1200 E 6TH	Deer Lodge	Jan-72	Dec-72
023 0007 11101	Suspended Particulate (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-86
023 0007 81102	Pm10 Total 0-10um Stp	LINCOLN SCHOOL	Deer Lodge	Jan-84	Dec-85
023 0007 61102	Wind Direction	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-81
023 0007 61101	Wind Speed	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-81

023	0007	44201	Ozone	LINCOLN SCHOOL	Deer Lodge	Jan-79	Dec-80
023	0007	43101	Total Hydrocarbons	LINCOLN SCHOOL	Deer Lodge	Jan-79	Dec-79
023	0007	42602	Nitrogen Dioxide	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-79
023	0007	42401	Sulfur Dioxide	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-81
023	0007	12403	Sulfate (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-78
023	0007	12403	Sulfate (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-80
023	0007	82167	Zinc (Pm10) Stp	LINCOLN SCHOOL	Deer Lodge	Jan-84	Dec-85
023	0007	82128	Lead (Pm10) Stp	LINCOLN SCHOOL	Deer Lodge	Jan-84	Dec-85
023	0007	82114	Copper (Pm10) Stp	LINCOLN SCHOOL	Deer Lodge	Jan-84	Dec-85
023	0007	82112	Chromium (Pm10) Stp	LINCOLN SCHOOL	Deer Lodge	Jan-84	Dec-85
023	0007	82110	Cadmium (Pm10) Stp	LINCOLN SCHOOL	Deer Lodge	Jan-84	Dec-85
023	0007	82103	Arsenic (Pm10) Stp	LINCOLN SCHOOL	Deer Lodge	Jan-84	Dec-85
023	0007	82101	Aluminum (Pm10) Stp	LINCOLN SCHOOL	Deer Lodge	Jan-84	Dec-85
023	0007	12306	Nitrate (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-80
023	0007	12167	Zinc (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-85
023	0007	12164	Vanadium (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-80
023	0007	12136	Nickel (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-80
023	0007	12132	Manganese (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-80

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
023	0007	12128	Lead (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-84	Dec-85
023	0007	12128	Lead (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-85
023	0007	12126	Iron (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-79
023	0007	12103	Arsenic (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-86
023	0007	12103	Arsenic (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-85	Dec-85
023	0007	12110	Cadmium (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-85
023	0007	12114	Copper (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-85
023	0007	12112	Chromium (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-85
023	0007	12101	Aluminum (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-78	Dec-85
023	0007	11101	Suspended Particulate (Tsp)	LINCOLN SCHOOL	Deer Lodge	Jan-84	Dec-85
023	0008	11101	Suspended Particulate (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0008	12403	Sulfate (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0008	12306	Nitrate (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0008	12167	Zinc (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0008	12136	Nickel (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0008	12132	Manganese (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78

023	0008	12110	Cadmium (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0008	12112	Chromium (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0008	12114	Copper (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0008	12128	Lead (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0008	12126	Iron (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0008	12103	Arsenic (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0008	12101	Aluminum (Tsp)	LINCOLN SCHOOL #2	Deer Lodge	Jan-78	Dec-78
023	0009	42401	Sulfur Dioxide	WARM SPRINGS	Deer Lodge	Jan-71	Dec-72
023	0010	61101	Wind Speed	ARCO COAL - TERESSA ANN TERRACE	Deer Lodge	Aug-89	Sep-92
023	0010	82110	Cadmium (Pm10) Stp	ARCO COAL - TERESSA ANN TERRACE	Deer Lodge	Jul-89	Sep-92
023	0010	82128	Lead (Pm10) Stp	ARCO COAL - TERESSA ANN TERRACE	Deer Lodge	Jul-89	Sep-92
023	0010	82167	Zinc (Pm10) Stp	ARCO COAL - TERESSA ANN TERRACE	Deer Lodge	Jul-89	Sep-92
023	0010	82114	Copper (Pm10) Stp	ARCO COAL - TERESSA ANN TERRACE	Deer Lodge	Jul-89	Sep-92
023	0010	82105	Beryllium (Pm10) Stp	ARCO COAL - TERESSA ANN TERRACE	Deer Lodge	Jul-89	Sep-92
023	0010	61106	Std Dev Hz Wind Direction	ARCO COAL - TERESSA ANN TERRACE	Deer Lodge	Aug-89	Sep-92
023	0010	61120	Atmospheric Stability	ARCO COAL - TERESSA ANN TERRACE	Deer Lodge	Aug-89	Sep-92
023	0010	82103	Arsenic (Pm10) Stp	ARCO COAL - TERESSA ANN TERRACE	Deer Lodge	Jul-89	Sep-92
023	0010	81102	Pm10 Total 0-10um Stp	ARCO COAL - TERESSA ANN TERRACE	Deer Lodge	Jul-89	Sep-92

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
023 0010	61102 Wind Direction	ARCO COAL - TERESSA ANN TERRACE	Deer Lodge	Aug-89	Sep-92
023 0011	61101 Wind Speed	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	Deer Lodge	Aug-89	Jun-92
023 0011	61120 Atmospheric Stability	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	Deer Lodge	Aug-89	Jun-92
023 0011	81102 Pm10 Total 0-10um Stp	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	Deer Lodge	Aug-89	Jun-92
023 0011	82105 Beryllium (Pm10) Stp	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	Deer Lodge	Aug-89	Jun-92
023 0011	82114 Copper (Pm10) Stp	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	Deer Lodge	Aug-89	Jun-92
023 0011	82167 Zinc (Pm10) Stp	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	Deer Lodge	Aug-89	Jun-92
023 0011	82128 Lead (Pm10) Stp	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	Deer Lodge	Aug-89	Jun-92
023 0011	82110 Cadmium (Pm10) Stp	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	Deer Lodge	Aug-89	Jun-92
023 0011	82103 Arsenic (Pm10) Stp	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	Deer Lodge	Aug-89	Jun-92
023 0011	61102 Wind Direction	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	Deer Lodge	Aug-89	Jun-92
023 0011	61106 Std Dev Hz Wind Direction	ARCO COAL-ZINC PROCESS,SMELTER NPL SITE	Deer Lodge	Aug-89	Jun-92
023 0012	11101 Suspended Particulate (Tsp)	MILL CREEK RR CROSSING	Deer Lodge	Jan-78	Dec-79
023 0012	12128 Lead (Tsp)	MILL CREEK RR CROSSING	Deer Lodge	Jan-79	Dec-79
023 0012	12136 Nickel (Tsp)	MILL CREEK RR CROSSING	Deer Lodge	Jan-79	Dec-79
023 0012	12306 Nitrate (Tsp)	MILL CREEK RR CROSSING	Deer Lodge	Jan-79	Dec-79

023	0012	42401	Sulfur Dioxide	MILL CREEK RR CROSSING	Deer Lodge	Jan-75	Dec-79
023	0012	12403	Sulfate (Tsp)	MILL CREEK RR CROSSING	Deer Lodge	Jan-79	Dec-79
023	0012	12164	Vanadium (Tsp)	MILL CREEK RR CROSSING	Deer Lodge	Jan-79	Dec-79
023	0012	12132	Manganese (Tsp)	MILL CREEK RR CROSSING	Deer Lodge	Jan-79	Dec-79
023	0012	12114	Copper (Tsp)	MILL CREEK RR CROSSING	Deer Lodge	Jan-79	Dec-79
023	0012	12103	Arsenic (Tsp)	MILL CREEK RR CROSSING	Deer Lodge	Jan-79	Dec-79
023	0012	12112	Chromium (Tsp)	MILL CREEK RR CROSSING	Deer Lodge	Jan-79	Dec-79
023	0012	12110	Cadmium (Tsp)	MILL CREEK RR CROSSING	Deer Lodge	Jan-79	Dec-79
023	0021	11101	Suspended Particulate (Tsp)	WALLEY JOHNSON RESIDENCE (SILICA)	Deer Lodge	Jan-71	Dec-71
023	0021	12110	Cadmium (Tsp)	WALLEY JOHNSON RESIDENCE (SILICA)	Deer Lodge	Jan-71	Dec-71
023	0021	12128	Lead (Tsp)	WALLEY JOHNSON RESIDENCE (SILICA)	Deer Lodge	Jan-71	Dec-71
023	0021	12167	Zinc (Tsp)	WALLEY JOHNSON RESIDENCE (SILICA)	Deer Lodge	Jan-71	Dec-71
023	0021	12403	Sulfate (Tsp)	WALLEY JOHNSON RESIDENCE (SILICA)	Deer Lodge	Jan-71	Dec-71
023	0021	12103	Arsenic (Tsp)	WALLEY JOHNSON RESIDENCE (SILICA)	Deer Lodge	Jan-71	Dec-71
023	0021	11103	Benzene Soluble Organics(Tsp)	WALLEY JOHNSON RESIDENCE (SILICA)	Deer Lodge	Jan-71	Dec-71
023	0022	11101	Suspended Particulate (Tsp)	BAILEY RESIDENCE EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-71
023	0022	12103	Arsenic (Tsp)	BAILEY RESIDENCE EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-71
023	0022	12128	Lead (Tsp)	BAILEY RESIDENCE EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-71

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
023	0022	12167	Zinc (Tsp)	BAILEY RESIDENCE EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-71
023	0022	42401	Sulfur Dioxide	BAILEY RESIDENCE EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-71
023	0022	12110	Cadmium (Tsp)	BAILEY RESIDENCE EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-71
023	0022	11103	Benzene Soluble Organics(Tsp)	BAILEY RESIDENCE EAST OF ANACONDA	Deer Lodge	Jan-71	Dec-71
023	0026	42401	Sulfur Dioxide	POOR FARM RESIDENCE	Deer Lodge	Jan-71	Dec-73
023	0035	42401	Sulfur Dioxide	CORTRITE TRAILER COURT	Deer Lodge	Jan-72	Dec-72
023	0036	42401	Sulfur Dioxide	WILLOW GLENN RANCH	Deer Lodge	Jan-73	Dec-73
023	0037	42401	Sulfur Dioxide	ANTELOPE	Deer Lodge	Jan-73	Dec-75
023	0038	42401	Sulfur Dioxide	PUMP HOUSE M-2	Deer Lodge	Jan-75	Dec-76
023	0039	11101	Suspended Particulate (Tsp)	WARM SPRINGS	Deer Lodge	Jan-80	Dec-81
023	0041	12208	Fluoride (Vegation)	RHONE-POULENC,#15 PETERSON,1 M N FAIRMNT	Deer Lodge	Jan-83	Sep-96
023	0706	11101	Suspended Particulate (Tsp)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85
023	0706	12128	Lead (Tsp)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85
023	0706	61101	Wind Speed	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Aug-89	Jun-92
023	0706	61106	Std Dev Hz Wind Direction	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Aug-89	Jun-92
023	0706	82103	Arsenic (Pm10) Stp	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-85	Jun-92

023	0706	82101	Aluminum (Pm10) Stp	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-85	Dec-85
023	0706	81102	Pm10 Total 0-10um Stp	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Aug-89	Jun-92
023	0706	81102	Pm10 Total 0-10um Stp	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85
023	0706	65102	Rain/Melt Precipitation	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Aug-89	Jun-92
023	0706	63301	Solar Radiation	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Aug-89	Jun-92
023	0706	62201	Relative Humidity 1	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Aug-89	Jun-92
023	0706	62101	Outdoor Temperature	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Aug-89	Jun-92
023	0706	61120	Atmospheric Stability	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Aug-89	Jun-92
023	0706	82167	Zinc (Pm10) Stp	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-85	Jun-92
023	0706	82128	Lead (Pm10) Stp	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-85	Jun-92
023	0706	82114	Copper (Pm10) Stp	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-85	Jun-92
023	0706	82112	Chromium (Pm10) Stp	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-85	Dec-85
023	0706	82110	Cadmium (Pm10) Stp	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-85	Jun-92
023	0706	82105	Beryllium (Pm10) Stp	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Aug-89	Jun-92
023	0706	61102	Wind Direction	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Aug-89	Jun-92
023	0706	12167	Zinc (Tsp)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85
023	0706	12114	Copper (Tsp)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85
023	0706	12103	Arsenic (Tsp)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
023	0706	12110	Cadmium (Tsp)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85
023	0706	12112	Chromium (Tsp)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85
023	0706	12101	Aluminum (Tsp)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85
023	0711	11101	Suspended Particulate (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12110	Cadmium (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12112	Chromium (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82112	Chromium (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82110	Cadmium (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82110	Cadmium (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82103	Arsenic (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82103	Arsenic (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82101	Aluminum (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82101	Aluminum (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	81102	Pm10 Total 0-10um Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	81102	Pm10 Total 0-10um Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82167	Zinc (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85

023	0711	82167	Zinc (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82128	Lead (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82128	Lead (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82114	Copper (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82114	Copper (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82112	Chromium (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	61102	Wind Direction	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	61101	Wind Speed	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12167	Zinc (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12167	Zinc (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12128	Lead (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12128	Lead (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12114	Copper (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12114	Copper (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12112	Chromium (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12110	Cadmium (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12101	Aluminum (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12101	Aluminum (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
023	0706	12110	Cadmium (Tsp)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85
023	0706	12112	Chromium (Tsp)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85
023	0706	12101	Aluminum (Tsp)	ARCO COAL-MILL CREEK,PARK-HIWAY 274	Deer Lodge	Jan-84	Dec-85
023	0711	11101	Suspended Particulate (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12110	Cadmium (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12112	Chromium (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82112	Chromium (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82110	Cadmium (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82110	Cadmium (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82103	Arsenic (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82103	Arsenic (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82101	Aluminum (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82101	Aluminum (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	81102	Pm10 Total 0-10um Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	81102	Pm10 Total 0-10um Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82167	Zinc (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85

023	0711	82167	Zinc (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82128	Lead (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82128	Lead (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82114	Copper (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82114	Copper (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	82112	Chromium (Pm10) Stp	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	61102	Wind Direction	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	61101	Wind Speed	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12167	Zinc (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12167	Zinc (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12128	Lead (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12128	Lead (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12114	Copper (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12114	Copper (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12112	Chromium (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12110	Cadmium (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12101	Aluminum (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12101	Aluminum (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
023	0711	12103	Arsenic (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	12103	Arsenic (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0711	11101	Suspended Particulate (Tsp)	JOHNSONS CURVE, RTE 48, WARM SPRINGS	Deer Lodge	Jan-84	Dec-85
023	0712	11101	Suspended Particulate (Tsp)	WHEELS-N-DEALS, 1100 W PARK	Deer Lodge	Jan-86	Dec-86
023	0712	12114	Copper (Tsp)	WHEELS-N-DEALS, 1100 W PARK	Deer Lodge	Jan-86	Dec-86
023	0712	12128	Lead (Tsp)	WHEELS-N-DEALS, 1100 W PARK	Deer Lodge	Jan-86	Dec-86
023	0712	12167	Zinc (Tsp)	WHEELS-N-DEALS, 1100 W PARK	Deer Lodge	Jan-86	Dec-86
023	0712	12110	Cadmium (Tsp)	WHEELS-N-DEALS, 1100 W PARK	Deer Lodge	Jan-86	Dec-86
023	0712	12103	Arsenic (Tsp)	WHEELS-N-DEALS, 1100 W PARK	Deer Lodge	Jan-86	Dec-86
023	0713	11101	Suspended Particulate (Tsp)	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA	Deer Lodge	Jan-86	Dec-88
023	0713	12110	Cadmium (Tsp)	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA	Deer Lodge	Jan-86	Dec-88
023	0713	12114	Copper (Tsp)	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA	Deer Lodge	Jan-86	Dec-88
023	0713	12167	Zinc (Tsp)	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA	Deer Lodge	Jan-86	Dec-88
023	0713	12128	Lead (Tsp)	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA	Deer Lodge	Jan-86	Dec-88
023	0713	12103	Arsenic (Tsp)	WOLFE RES.1212 MILL CREEK RD#1 ANACONDA	Deer Lodge	Jan-86	Dec-88
023	0714	11101	Suspended Particulate (Tsp)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Jan-86	Dec-89

023	0714	12167	Zinc (Tsp)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Jan-86	Dec-89
023	0714	81102	Pm10 Total 0-10um Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Dec-90
023	0714	82103	Arsenic (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Dec-90
023	0714	82105	Beryllium (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Dec-90
023	0714	82167	Zinc (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Dec-90
023	0714	82167	Zinc (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Jun-92
023	0714	82128	Lead (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Dec-90
023	0714	82128	Lead (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Jun-92
023	0714	82114	Copper (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Dec-90
023	0714	82114	Copper (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Jun-92
023	0714	82110	Cadmium (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Dec-90
023	0714	82110	Cadmium (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Jun-92
023	0714	82105	Beryllium (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Jun-92
023	0714	82103	Arsenic (Pm10) Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Jun-92
023	0714	81102	Pm10 Total 0-10um Stp	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Aug-89	Jun-92
023	0714	12128	Lead (Tsp)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Jan-86	Dec-89
023	0714	12103	Arsenic (Tsp)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Jan-86	Dec-89
023	0714	12114	Copper (Tsp)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Jan-86	Dec-89

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
023	0714	12110	Cadmium (Tsp)	ARCO COAL-KORTUM STORAGE,HIWY 1-LNDFL RD	Deer Lodge	Jan-86	Dec-89
023	0801	42401	Sulfur Dioxide	WATER OFFICE	Deer Lodge	Jan-75	Dec-80
023	0802	42401	Sulfur Dioxide	COUNTY AIRPORT	Deer Lodge	Jan-75	Dec-80
023	0803	42401	Sulfur Dioxide	OPPORTUNITY	Deer Lodge	Jan-75	Dec-80
023	0804	42401	Sulfur Dioxide	MILL CREEK	Deer Lodge	Jan-75	Dec-80
023	0806	42401	Sulfur Dioxide	C - HILL	Deer Lodge	Jan-75	Dec-79
023	0807	42401	Sulfur Dioxide	WEST GATE OF ACC	Deer Lodge	Jan-75	Dec-80
023	0904	42401	Sulfur Dioxide	POST OFFICE	Deer Lodge	Jan-74	Dec-78
023	0905	42401	Sulfur Dioxide	TAILINGS HILL	Deer Lodge	Jan-74	Dec-75
023	0906	42401	Sulfur Dioxide	'C' HILL SOUTH OF ANACONDA	Deer Lodge	Jan-74	Dec-78
023	0906	42401	Sulfur Dioxide	'C' HILL SOUTH OF ANACONDA	Deer Lodge	Jan-74	Dec-74
025	0001	11101	Suspended Particulate (Tsp)	BOX 103 PLEUNA MT 59433	Fallon	Jan-81	Dec-84
027	0001	81102	Pm10 Total 0-10um Stp	KENDALL VENTURE MINE-TOWN SITE #1,HILGER	Fergus	Sep-88	Dec-89
027	0002	11101	Suspended Particulate (Tsp)	LEWISTOWN DOWNTOWN, 450 N. JANEAUX	Fergus	Jan-80	Dec-83
027	0003	61101	Wind Speed	CR KENDALL-POND SITE #2, HILGER880901	Fergus	Sep-88	Jan-90
027	0003	81102	Pm10 Total 0-10um Stp	CR KENDALL-POND SITE #2, HILGER880901	Fergus	Sep-88	Dec-89

027	0003	61102	Wind Direction	CR KENDALL-POND SITE #2, HILGER880901	Fergus	Sep-88	Jan-90
027	0004	61101	Wind Speed	CR KENDALL-N TOWNSITE #3, HILGER	Fergus	Feb-90	Mar-92
027	0004	82128	Lead (Pm10) Stp	CR KENDALL-N TOWNSITE #3, HILGER	Fergus	Jan-90	Dec-91
027	0004	62101	Outdoor Temperature	CR KENDALL-N TOWNSITE #3, HILGER	Fergus	Feb-90	Mar-92
027	0004	81102	Pm10 Total 0-10um Stp	CR KENDALL-N TOWNSITE #3, HILGER	Fergus	Jan-90	Dec-97
027	0004	82103	Arsenic (Pm10) Stp	CR KENDALL-N TOWNSITE #3, HILGER	Fergus	Jan-90	Dec-91
027	0004	82112	Chromium (Pm10) Stp	CR KENDALL-N TOWNSITE #3, HILGER	Fergus	Jan-90	Dec-91
027	0004	82110	Cadmium (Pm10) Stp	CR KENDALL-N TOWNSITE #3, HILGER	Fergus	Jan-90	Dec-91
027	0004	61106	Std Dev Hz Wind Direction	CR KENDALL-N TOWNSITE #3, HILGER	Fergus	Feb-90	Mar-92
027	0004	61102	Wind Direction	CR KENDALL-N TOWNSITE #3, HILGER	Fergus	Feb-90	Mar-92
027	0005	81102	Pm10 Total 0-10um Stp	CR KENDALL-BSA SITE #4, HILGER	Fergus	Jan-90	Dec-97
027	0005	82112	Chromium (Pm10) Stp	CR KENDALL-BSA SITE #4, HILGER	Fergus	Jan-90	Dec-91
027	0005	82128	Lead (Pm10) Stp	CR KENDALL-BSA SITE #4, HILGER	Fergus	Jan-90	Dec-91
027	0005	82103	Arsenic (Pm10) Stp	CR KENDALL-BSA SITE #4, HILGER	Fergus	Jan-90	Dec-91
027	0005	82110	Cadmium (Pm10) Stp	CR KENDALL-BSA SITE #4, HILGER	Fergus	Jan-90	Dec-91
029	0002	11101	Suspended Particulate (Tsp)	HIGH SCHOOL	Flathead	Jan-72	Dec-77
029	0002	12110	Cadmium (Tsp)	HIGH SCHOOL	Flathead	Jan-72	Dec-77
029	0002	12128	Lead (Tsp)	HIGH SCHOOL	Flathead	Jan-72	Dec-77

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
029	0002	12167	Zinc (Tsp)	HIGH SCHOOL	Flathead	Jan-72	Dec-77
029	0002	11103	Benzene Soluble Organics(Tsp)	HIGH SCHOOL	Flathead	Jan-72	Dec-77
029	0003	11101	Suspended Particulate (Tsp)	JR HIGH SCHOOL, 500 4TH AVE NORTH	Flathead	Jan-71	Dec-87
029	0003	11103	Benzene Soluble Organics(Tsp)	JR HIGH SCHOOL, 500 4TH AVE NORTH	Flathead	Jan-71	Dec-87
029	0003	81102	Pm10 Total 0-10um Stp	JR HIGH SCHOOL, 500 4TH AVE NORTH	Flathead	May-85	Dec-87
029	0003	85101	Pm10 - Local Conditions	JR HIGH SCHOOL, 500 4TH AVE NORTH	Flathead	Jan-98	Dec-02
029	0003	81102	Pm10 Total 0-10um Stp	JR HIGH SCHOOL, 500 4TH AVE NORTH	Flathead	Apr-87	Dec-02
029	0004	12209	Fluoride (Paper Samplers)	R.E. OWENS RES HW2 S. OF COLUMBIA FALLS	Flathead	Jan-82	Dec-83
029	0004	12209	Fluoride (Paper Samplers)	R.E. OWENS RES HW2 S. OF COLUMBIA FALLS	Flathead	Jan-82	Dec-83
029	0005	11101	Suspended Particulate (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-77	Dec-87
029	0005	12132	Manganese (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-78	Dec-78
029	0005	12403	Sulfate (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-78	Dec-79
029	0005	12306	Nitrate (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-78	Dec-79
029	0005	12167	Zinc (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-78	Dec-78
029	0005	12136	Nickel (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-78	Dec-78
029	0005	12128	Lead (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-78	Dec-78

029	0005	12101	Aluminum (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-78	Dec-78
029	0005	12110	Cadmium (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-78	Dec-78
029	0005	12114	Copper (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-78	Dec-78
029	0005	12126	Iron (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-78	Dec-78
029	0005	12103	Arsenic (Tsp)	ANDERS RESIDENCE, 726 FIRST AVENUE EAST	Flathead	Jan-78	Dec-78
029	0006	21101	Total Dustfall (Sp)	LABERE - 981 2ND ST, COLUMBIA FALLS	Flathead	Jan-85	Dec-88
029	0006	25101	Dustfall Combustible (Sp)	LABERE - 981 2ND ST, COLUMBIA FALLS	Flathead	Jan-86	Dec-88
029	0007	81102	Pm10 Total 0-10um Stp	CORNER OF C ST & 4TH AVE EN	Flathead	Aug-01	NULL
029	0007	85101	Pm10 - Local Conditions	CORNER OF C ST & 4TH AVE EN	Flathead	Aug-01	NULL
029	0008	11101	Suspended Particulate (Tsp)	LASALLE & EVERGREEN	Flathead	Jan-72	Dec-72
029	0008	11103	Benzene Soluble Organics(Tsp)	LASALLE & EVERGREEN	Flathead	Jan-72	Dec-72
029	0009	68101	Sample Flow Rate- Cv	END OF 10TH ST	Flathead	Oct-01	NULL
029	0009	68103	Ambient Min Temperature	END OF 10TH ST	Flathead	Oct-01	NULL
029	0009	68104	Ambient Max Temperature	END OF 10TH ST	Flathead	Oct-01	NULL
029	0009	68106	Sample Min Baro Pressure	END OF 10TH ST	Flathead	Oct-01	NULL
029	0009	68108	Sample Avg Baro Pressure	END OF 10TH ST	Flathead	Oct-01	NULL
029	0009	81102	Pm10 Total 0-10um Stp	END OF 10TH ST	Flathead	Sep-01	NULL
029	0009	88101	Pm2.5 - Local Conditions	END OF 10TH ST	Flathead	Oct-01	NULL

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
029	0009	85101	Pm10 - Local Conditions	END OF 10TH ST	Flathead	Sep-01	NULL
029	0009	68109	Elapsed Sample Time	END OF 10TH ST	Flathead	Oct-01	NULL
029	0009	68107	Sample Max Baro Pressure	END OF 10TH ST	Flathead	Oct-01	NULL
029	0009	68105	Ambient Avg Temperature	END OF 10TH ST	Flathead	Oct-01	NULL
029	0009	68102	Sample Volume	END OF 10TH ST	Flathead	Oct-01	NULL
029	0010	42101	Carbon Monoxide	MOOSE'S SALOON - IDAHO AND MAIN KALISPELL	Flathead	Oct-03	NULL
029	0011	12209	Fluoride (Paper Samplers)	BEETON HILLS, MT	Flathead	Jan-82	Dec-83
029	0011	42410	Sulfation Rate	BEETON HILLS, MT	Flathead	Jan-82	Dec-83
029	0012	12209	Fluoride (Paper Samplers)	(DEHLBOMS FIELD), COLUMBIA FALLS MT	Flathead	Jan-82	Dec-83
029	0012	12209	Fluoride (Paper Samplers)	(DEHLBOMS FIELD), COLUMBIA FALLS MT	Flathead	Jan-82	Dec-83
029	0013	12209	Fluoride (Paper Samplers)	(ANACONDA SOUTH) COLUMBIA FALLS MT	Flathead	Jan-82	Dec-83
029	0013	12209	Fluoride (Paper Samplers)	(ANACONDA SOUTH) COLUMBIA FALLS MT	Flathead	Jan-82	Dec-83
029	0014	12209	Fluoride (Paper Samplers)	(TEAKETTLE MTN #1) COLUMBIA FALLS MT	Flathead	Jan-82	Dec-83
029	0014	12209	Fluoride (Paper Samplers)	(TEAKETTLE MTN #1) COLUMBIA FALLS MT	Flathead	Jan-82	Dec-83
029	0015	12209	Fluoride (Paper Samplers)	THE LOOP, 23 MILES NE OF WEST GLACIER MT	Flathead	Jan-82	Dec-83
029	0015	42410	Sulfation Rate	THE LOOP, 23 MILES NE OF WEST GLACIER MT	Flathead	Jan-82	Dec-83

029	0016	42410	Sulfation Rate	LOGAN PASS VISITOR CENTER	Flathead	Jan-82	Dec-82
029	0018	11101	Suspended Particulate (Tsp)	PETERSON SCHOOL,3RD ST & MERIDIAN RD	Flathead	Jan-86	Dec-87
029	0021	12209	Fluoride (Paper Samplers)	LAKE MCDONALD RANGER STATION	Flathead	Jan-82	Dec-83
029	0021	42410	Sulfation Rate	LAKE MCDONALD RANGER STATION	Flathead	Jan-82	Dec-83
029	0022	12209	Fluoride (Paper Samplers)	(TEAKETTLE MTN #7) COLUMBIA FALLS MT	Flathead	Jan-82	Dec-83
029	0022	12209	Fluoride (Paper Samplers)	(TEAKETTLE MTN #7) COLUMBIA FALLS MT	Flathead	Jan-82	Dec-83
029	0028	12209	Fluoride (Paper Samplers)	(ALUMINUM CITY) COLUMBIA FALLS MT	Flathead	Jan-82	Dec-83
029	0028	12209	Fluoride (Paper Samplers)	(ALUMINUM CITY) COLUMBIA FALLS MT	Flathead	Jan-82	Dec-83
029	0029	11101	Suspended Particulate (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-74	Dec-83
029	0029	12128	Lead (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-78
029	0029	12403	Sulfate (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-79
029	0029	12306	Nitrate (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-79
029	0029	12209	Fluoride (Paper Samplers)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-83
029	0029	12167	Zinc (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-78
029	0029	12164	Vanadium (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-78
029	0029	12136	Nickel (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-78
029	0029	12132	Manganese (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-78
029	0029	12126	Iron (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-78

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
029	0029	12209	Fluoride (Paper Samplers)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-83
029	0029	12101	Aluminum (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-78
029	0029	12110	Cadmium (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-78
029	0029	12112	Chromium (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-78
029	0029	12114	Copper (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-78
029	0029	12103	Arsenic (Tsp)	NAAC TRAILER, NORTH OF AAC	Flathead	Jan-78	Dec-78
029	0034	11101	Suspended Particulate (Tsp)	MOOSE CITY	Flathead	Jan-78	Dec-79
029	0034	12306	Nitrate (Tsp)	MOOSE CITY	Flathead	Jan-78	Dec-79
029	0034	12403	Sulfate (Tsp)	MOOSE CITY	Flathead	Jan-78	Dec-79
029	0035	11101	Suspended Particulate (Tsp)	POLEBRIDGE, MT	Flathead	Jan-81	Dec-83
029	0035	12128	Lead (Tsp)	POLEBRIDGE, MT	Flathead	Jan-81	Dec-81
029	0035	12306	Nitrate (Tsp)	POLEBRIDGE, MT	Flathead	Jan-81	Dec-83
029	0035	12403	Sulfate (Tsp)	POLEBRIDGE, MT	Flathead	Jan-81	Dec-83
029	0035	12110	Cadmium (Tsp)	POLEBRIDGE, MT	Flathead	Jan-81	Dec-81
029	0036	11101	Suspended Particulate (Tsp)	BIG FORK RANGER STATION	Flathead	Jan-79	Dec-83
029	0036	63301	Solar Radiation	BIG FORK RANGER STATION	Flathead	Jan-79	Dec-80

029	0036	62101	Outdoor Temperature	BIG FORK RANGER STATION	Flathead	Jan-79	Dec-83
029	0036	12306	Nitrate (Tsp)	BIG FORK RANGER STATION	Flathead	Jan-79	Dec-83
029	0036	12403	Sulfate (Tsp)	BIG FORK RANGER STATION	Flathead	Jan-79	Dec-83
029	0036	61102	Wind Direction	BIG FORK RANGER STATION	Flathead	Jan-79	Dec-83
029	0036	61101	Wind Speed	BIG FORK RANGER STATION	Flathead	Jan-79	Dec-83
029	0037	11101	Suspended Particulate (Tsp)	WHITEFISH, MT CORNER SECOND AND PINE	Flathead	Jan-81	Dec-83
029	0037	12306	Nitrate (Tsp)	WHITEFISH, MT CORNER SECOND AND PINE	Flathead	Jan-81	Dec-83
029	0037	12403	Sulfate (Tsp)	WHITEFISH, MT CORNER SECOND AND PINE	Flathead	Jan-81	Dec-83
029	0038	61101	Wind Speed	C.F.JR HIGH PLAYGROUND 4TH W & 7TH ST.	Flathead	Sep-88	Dec-89
029	0038	61102	Wind Direction	C.F.JR HIGH PLAYGROUND 4TH W & 7TH ST.	Flathead	Sep-88	Dec-89
029	0039	68101	Sample Flow Rate- Cv	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-99	Apr-01
029	0039	68103	Ambient Min Temperature	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-99	Apr-01
029	0039	68105	Ambient Avg Temperature	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-99	Apr-01
029	0039	68107	Sample Max Baro Pressure	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-99	Apr-01
029	0039	68109	Elapsed Sample Time	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-99	Apr-01
029	0039	68108	Sample Avg Baro Pressure	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-99	Apr-01
029	0039	68106	Sample Min Baro Pressure	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-99	Apr-01
029	0039	88101	Pm2.5 - Local Conditions	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-99	Apr-01

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
029	0039	85101	Pm10 - Local Conditions	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-00	Apr-01
029	0039	85101	Pm10 - Local Conditions	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-98	Apr-01
029	0039	81102	Pm10 Total 0-10um Stp	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Oct-95	Apr-01
029	0039	81102	Pm10 Total 0-10um Stp	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Apr-91	Apr-01
029	0039	68104	Ambient Max Temperature	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-99	Apr-01
029	0039	68102	Sample Volume	WHITEFISH - MARKUS FOODS, 9 BAKER AVENUE	Flathead	Jan-99	Apr-01
029	0040	21101	Total Dustfall (Sp)	HOUSTON DUSTFALL,1326 2ND ST W,KALISPELL	Flathead	Aug-91	Jul-92
029	0040	25101	Dustfall Combustible (Sp)	HOUSTON DUSTFALL,1326 2ND ST W,KALISPELL	Flathead	Aug-91	Jul-92
029	0041	81102	Pm10 Total 0-10um Stp	WHITEFISH - PATTERSON CORRAL CMB	Flathead	Jan-93	Apr-94
029	0042	21101	Total Dustfall (Sp)	KALISPELL-KIGER DUSTFALL	Flathead	Dec-92	Oct-93
029	0042	25101	Dustfall Combustible (Sp)	KALISPELL-KIGER DUSTFALL	Flathead	Dec-92	Oct-93
029	0043	68101	Sample Flow Rate- Cv	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jan-99	Jun-99
029	0043	68102	Sample Volume	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jan-99	Jun-99
029	0043	68104	Ambient Max Temperature	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jan-99	Jun-99
029	0043	68106	Sample Min Baro Pressure	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jan-99	Jun-99
029	0043	88101	Pm2.5 - Local Conditions	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jan-99	Jun-99

029	0043	85101	Pm10 - Local Conditions	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jan-98	Dec-99
029	0043	81102	Pm10 Total 0-10um Stp	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jun-94	Dec-99
029	0043	68109	Elapsed Sample Time	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jan-99	Jun-99
029	0043	68108	Sample Avg Baro Pressure	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jan-99	Jun-99
029	0043	68107	Sample Max Baro Pressure	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jan-99	Jun-99
029	0043	68105	Ambient Avg Temperature	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jan-99	Jun-99
029	0043	68103	Ambient Min Temperature	EVERGREEN FIRESTATION 2236 HWY 2 E KSPL	Flathead	Jan-99	Jun-99
029	0044	21101	Total Dustfall (Sp)	KALISPELL-MORRIS DUSTFALL;53 MEADOWLARK	Flathead	Jul-94	Jul-95
029	0044	25101	Dustfall Combustible (Sp)	KALISPELL-MORRIS DUSTFALL;53 MEADOWLARK	Flathead	Jul-94	Jul-95
029	0045	61101	Wind Speed	IDAHO & MAIN, KSPL JCT US HWY 93 & 2	Flathead	Apr-96	Feb-00
029	0045	61102	Wind Direction	IDAHO & MAIN, KSPL JCT US HWY 93 & 2	Flathead	Apr-96	Feb-00
029	0045	42101	Carbon Monoxide	IDAHO & MAIN, KSPL JCT US HWY 93 & 2	Flathead	Oct-95	Feb-00
029	0045	61106	Std Dev Hz Wind Direction	IDAHO & MAIN, KSPL JCT US HWY 93 & 2	Flathead	Apr-96	Feb-00
029	0046	42101	Carbon Monoxide	LASER SCH-CRNR E WASHINGTON/6TH AVE EN	Flathead	Nov-96	Jun-99
029	0047	68101	Sample Flow Rate- Cv	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jun-99	NULL
029	0047	68104	Ambient Max Temperature	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jun-99	NULL
029	0047	42101	Carbon Monoxide	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jun-99	NULL
029	0047	88101	Pm2.5 - Local Conditions	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jun-99	NULL

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
029	0047	85101	Pm10 - Local Conditions	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jan-00	NULL
029	0047	81102	Pm10 Total 0-10um Stp	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jul-99	NULL
029	0047	68109	Elapsed Sample Time	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jun-99	NULL
029	0047	68108	Sample Avg Baro Pressure	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jun-99	NULL
029	0047	68107	Sample Max Baro Pressure	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jun-99	NULL
029	0047	68106	Sample Min Baro Pressure	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jun-99	NULL
029	0047	68105	Ambient Avg Temperature	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jun-99	NULL
029	0047	68103	Ambient Min Temperature	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jun-99	NULL
029	0047	68102	Sample Volume	FLATHEAD ELEC/CENTER ST & WOODLAND AVE	Flathead	Jun-99	NULL
029	0048	42101	Carbon Monoxide	2510 HWY 2 EAST	Flathead	Apr-00	Aug-03
029	0301	11203	Light Scatter	BRANDT	Flathead	Jan-77	Dec-78
029	0301	61101	Wind Speed	BRANDT	Flathead	Jan-79	Dec-79
029	0301	62101	Outdoor Temperature	BRANDT	Flathead	Jan-79	Dec-79
029	0301	63301	Solar Radiation	BRANDT	Flathead	Jan-77	Dec-77
029	0302	61101	Wind Speed	GEIS	Flathead	Jan-79	Dec-79
029	0302	63301	Solar Radiation	GEIS	Flathead	Jan-77	Dec-79

029	0302	61102	Wind Direction	GEIS	Flathead	Jan-79	Dec-79
029	0302	62101	Outdoor Temperature	GEIS	Flathead	Jan-78	Dec-79
029	0304	11101	Suspended Particulate (Tsp)	GLACIER AIRPORT	Flathead	Jan-79	Dec-82
029	0304	11203	Light Scatter	GLACIER AIRPORT	Flathead	Jan-76	Dec-83
029	0304	12306	Nitrate (Tsp)	GLACIER AIRPORT	Flathead	Jan-79	Dec-82
029	0304	61101	Wind Speed	GLACIER AIRPORT	Flathead	Jan-76	Dec-83
029	0304	62101	Outdoor Temperature	GLACIER AIRPORT	Flathead	Jan-79	Dec-83
029	0304	64101	Barometric Pressure	GLACIER AIRPORT	Flathead	Jan-78	Dec-80
029	0304	63301	Solar Radiation	GLACIER AIRPORT	Flathead	Jan-79	Dec-80
029	0304	63301	Solar Radiation	GLACIER AIRPORT	Flathead	Jan-79	Dec-81
029	0304	63301	Solar Radiation	GLACIER AIRPORT	Flathead	Jan-76	Dec-83
029	0304	62103	Dew Point	GLACIER AIRPORT	Flathead	Jan-79	Dec-79
029	0304	61102	Wind Direction	GLACIER AIRPORT	Flathead	Jan-76	Dec-83
029	0304	12403	Sulfate (Tsp)	GLACIER AIRPORT	Flathead	Jan-79	Dec-82
029	0308	61101	Wind Speed	BIG PRAIRIE	Flathead	Jan-80	Dec-82
029	0308	61102	Wind Direction	BIG PRAIRIE	Flathead	Jan-80	Dec-82
029	0308	62101	Outdoor Temperature	BIG PRAIRIE	Flathead	Jan-80	Dec-82
029	0707	12208	Fluoride (Vegation)	COLUMBIA FALLS ALUMINUM-DOANE	Flathead	Jan-82	NULL

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
029	0708	12208	Fluoride (Vegation)	COLUMBIA FALLS ALUMINUM-HOFFMAN	Flathead	Jan-82	NULL
029	0709	12208	Fluoride (Vegation)	COLUMBIA FALLS ALUMINUM-LIDDLE	Flathead	Jan-82	Dec-90
029	0710	12208	Fluoride (Vegation)	CFAC-NEW LIDDLE,7200 HWY 2E, COL FALLS	Flathead	May-91	NULL
029	0711	81102	Pm10 Total 0-10um Stp	CFAC-PM10 AMBIENT,2000 ALUMINUM DRIVE,CF	Flathead	Jan-93	Dec-97
029	0711	85101	Pm10 - Local Conditions	CFAC-PM10 AMBIENT,2000 ALUMINUM DRIVE,CF	Flathead	Jan-98	Sep-00
029	1002	11101	Suspended Particulate (Tsp)	DEHLBOM RANCH, COLUMBIA FALLS, MT	Flathead	Jan-73	Dec-76
029	1002	12209	Fluoride (Paper Samplers)	DEHLBOM RANCH, COLUMBIA FALLS, MT	Flathead	Jan-82	Dec-83
029	1002	12209	Fluoride (Paper Samplers)	DEHLBOM RANCH, COLUMBIA FALLS, MT	Flathead	Jan-82	Dec-83
029	1003	12209	Fluoride (Paper Samplers)	FIERSTEIN RANCH, COLUMBIA FALLS, MT	Flathead	Jan-82	Dec-83
029	1003	12209	Fluoride (Paper Samplers)	FIERSTEIN RANCH, COLUMBIA FALLS, MT	Flathead	Jan-82	Dec-83
029	1005	12209	Fluoride (Paper Samplers)	(BADROCK SUBSTATION) W. OF HUNGRY HORSE	Flathead	Jan-82	Dec-83
029	1005	12209	Fluoride (Paper Samplers)	(BADROCK SUBSTATION) W. OF HUNGRY HORSE	Flathead	Jan-82	Dec-83
029	1011	11101	Suspended Particulate (Tsp)	MCLAUGHLIN, 222-8TH ST E	Flathead	Jan-75	Dec-75
029	1012	11101	Suspended Particulate (Tsp)	19 5TH AVE W UNIT 12	Flathead	Jan-75	Dec-76
029	1013	12209	Fluoride (Paper Samplers)	FISH CREEK, .5 MILE N OF APGAR, MT	Flathead	Jan-82	Dec-83
029	1013	42410	Sulfation Rate	FISH CREEK, .5 MILE N OF APGAR, MT	Flathead	Jan-82	Dec-83

029	1014	12209	Fluoride (Paper Samplers)	LEBRIDGE RANGER STATION 1 MI NORTH	Flathead	Jan-82	Dec-83
029	1014	12209	Fluoride (Paper Samplers)	LEBRIDGE RANGER STATION 1 MI NORTH	Flathead	Jan-82	Dec-83
029	1014	42410	Sulfation Rate	LEBRIDGE RANGER STATION 1 MI NORTH	Flathead	Jan-82	Dec-83
029	1015	11101	Suspended Particulate (Tsp)	UNIVERSAL ATHLETIC, 223 MAIN ST	Flathead	Jan-80	Dec-87
029	1015	81102	Pm10 Total 0-10um Stp	UNIVERSAL ATHLETIC, 223 MAIN ST	Flathead	Jul-85	Dec-87
029	1015	85101	Pm10 - Local Conditions	UNIVERSAL ATHLETIC, 223 MAIN ST	Flathead	Jan-98	Jun-01
029	1015	81102	Pm10 Total 0-10um Stp	UNIVERSAL ATHLETIC, 223 MAIN ST	Flathead	Sep-95	Jun-99
029	1015	81102	Pm10 Total 0-10um Stp	UNIVERSAL ATHLETIC, 223 MAIN ST	Flathead	Apr-87	Jun-01
029	1015	12403	Sulfate (Tsp)	UNIVERSAL ATHLETIC, 223 MAIN ST	Flathead	Jan-80	Dec-84
029	1015	12306	Nitrate (Tsp)	UNIVERSAL ATHLETIC, 223 MAIN ST	Flathead	Jan-80	Dec-84
029	1016	11101	Suspended Particulate (Tsp)	510 LASALLE RD. KALISPELL	Flathead	Jan-80	Dec-82
029	1016	12403	Sulfate (Tsp)	510 LASALLE RD. KALISPELL	Flathead	Jan-82	Dec-82
029	1016	12306	Nitrate (Tsp)	510 LASALLE RD. KALISPELL	Flathead	Jan-82	Dec-82
029	1017	11101	Suspended Particulate (Tsp)	COURTHOUSE EAST, 723 5TH AVE EAST	Flathead	Jan-83	Dec-84
029	1017	11203	Light Scatter	COURTHOUSE EAST, 723 5TH AVE EAST	Flathead	Jan-91	Mar-93
029	1017	12403	Sulfate (Tsp)	COURTHOUSE EAST, 723 5TH AVE EAST	Flathead	Jan-84	Dec-84
029	1017	12306	Nitrate (Tsp)	COURTHOUSE EAST, 723 5TH AVE EAST	Flathead	Jan-84	Dec-84
029	1018	81102	Pm10 Total 0-10um Stp	EAST MAINTENANCE BUILDING, KALISPELL	Flathead	Oct-93	Sep-95

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
029	1018	81102	Pm10 Total 0-10um Stp	EAST MAINTENANCE BUILDING, KALISPELL	Flathead	Oct-93	Aug-95
029	1022	12209	Fluoride (Paper Samplers)	WALTON RANGER STATION .5 MI SE OF ESSEX	Flathead	Jan-82	Dec-83
029	1022	42410	Sulfation Rate	WALTON RANGER STATION .5 MI SE OF ESSEX	Flathead	Jan-82	Dec-83
029	2002	11101	Suspended Particulate (Tsp)	GEORGE MAYHEW 39 SUNSET DRIVE	Flathead	Jan-71	Dec-74
029	2002	11103	Benzene Soluble Organics(Tsp)	GEORGE MAYHEW 39 SUNSET DRIVE	Flathead	Jan-71	Dec-72
029	2002	12167	Zinc (Tsp)	GEORGE MAYHEW 39 SUNSET DRIVE	Flathead	Jan-72	Dec-72
029	2002	12128	Lead (Tsp)	GEORGE MAYHEW 39 SUNSET DRIVE	Flathead	Jan-72	Dec-72
029	2002	12110	Cadmium (Tsp)	GEORGE MAYHEW 39 SUNSET DRIVE	Flathead	Jan-72	Dec-72
029	2003	12209	Fluoride (Paper Samplers)	SOUTH SLOPE OF APGAR MOUNTAIN	Flathead	Jan-82	Dec-83
029	2003	42410	Sulfation Rate	SOUTH SLOPE OF APGAR MOUNTAIN	Flathead	Jan-82	Dec-83
029	2005	12209	Fluoride (Paper Samplers)	FLATHEAD RANGER STATION	Flathead	Jan-82	Dec-83
029	2005	42410	Sulfation Rate	FLATHEAD RANGER STATION	Flathead	Jan-82	Dec-83
029	2013	11101	Suspended Particulate (Tsp)	140 7TH AVE. WEST KALISPELL, MONTANA	Flathead	Jan-77	Dec-78
029	2014	11101	Suspended Particulate (Tsp)	STROM RESIDENCE, 534 FOURTH AVE EAST	Flathead	Jan-78	Dec-80
029	2014	12306	Nitrate (Tsp)	STROM RESIDENCE, 534 FOURTH AVE EAST	Flathead	Jan-79	Dec-80
029	2014	12403	Sulfate (Tsp)	STROM RESIDENCE, 534 FOURTH AVE EAST	Flathead	Jan-79	Dec-80

031	0001	11101	Suspended Particulate (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-82
031	0001	12103	Arsenic (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-78
031	0001	12112	Chromium (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-78
031	0001	12403	Sulfate (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-79
031	0001	12306	Nitrate (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-79
031	0001	12167	Zinc (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-78
031	0001	12164	Vanadium (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-78
031	0001	12136	Nickel (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-78
031	0001	12132	Manganese (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-78
031	0001	12128	Lead (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-78
031	0001	12126	Iron (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-78
031	0001	12114	Copper (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-78
031	0001	12110	Cadmium (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-78
031	0001	12101	Aluminum (Tsp)	TRAPHAGEN HALL, MSU - BOZEMAN, MT	Gallatin	Jan-78	Dec-78
031	0002	11101	Suspended Particulate (Tsp)	CITY BUILDING, 34 NORTH ROUSE	Gallatin	Jan-80	Dec-87
031	0002	12403	Sulfate (Tsp)	CITY BUILDING, 34 NORTH ROUSE	Gallatin	Jan-82	Dec-82
031	0002	81102	Pm10 Total 0-10um Stp	CITY BUILDING, 34 NORTH ROUSE	Gallatin	Jul-85	Dec-87
031	0002	81102	Pm10 Total 0-10um Stp	CITY BUILDING, 34 NORTH ROUSE	Gallatin	Apr-87	Aug-02

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
031	0002	85101	Pm10 - Local Conditions	CITY BUILDING, 34 NORTH ROUSE	Gallatin	Jan-98	Aug-02
031	0003	11101	Suspended Particulate (Tsp)	MSU FAMILY HOUSING, 19TH & COLLEGE ST	Gallatin	Jan-80	Dec-81
031	0004	61101	Wind Speed	BIG SKY GOLF COURSE	Gallatin	Jan-82	Dec-83
031	0004	61102	Wind Direction	BIG SKY GOLF COURSE	Gallatin	Jan-82	Dec-83
031	0004	62101	Outdoor Temperature	BIG SKY GOLF COURSE	Gallatin	Jan-82	Dec-83
031	0005	11101	Suspended Particulate (Tsp)	WHITTIER SCHOOL, 515 N 5TH AVENUE	Gallatin	Jan-81	Dec-85
031	0007	11101	Suspended Particulate (Tsp)	SOURDOUGH CREEK, 211 EAST MASON STREET	Gallatin	Jan-85	Dec-87
031	0008	68101	Sample Flow Rate- Cv	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-00	NULL
031	0008	68103	Ambient Min Temperature	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-00	NULL
031	0008	68105	Ambient Avg Temperature	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-00	NULL
031	0008	85101	Pm10 - Local Conditions	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-02	NULL
031	0008	81102	Pm10 Total 0-10um Stp	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-02	NULL
031	0008	88101	Pm2.5 - Local Conditions	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-00	NULL
031	0008	85101	Pm10 - Local Conditions	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-98	NULL
031	0008	81102	Pm10 Total 0-10um Stp	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Oct-91	NULL
031	0008	68109	Elapsed Sample Time	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-00	NULL

031	0008	68108	Sample Avg Baro Pressure	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-00	NULL
031	0008	68107	Sample Max Baro Pressure	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-00	NULL
031	0008	68106	Sample Min Baro Pressure	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-00	NULL
031	0008	68104	Ambient Max Temperature	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-00	NULL
031	0008	68102	Sample Volume	BELGRADE CONAGRA,100 S BROADWAY,BELGRAD	Gallatin	Jan-00	NULL
031	0009	81102	Pm10 Total 0-10um Stp	W.YELLOWSTONE; YNP WEST ENTRANCE	Gallatin	Oct-94	Mar-95
031	0012	81102	Pm10 Total 0-10um Stp	FIREHOLE,W YLLSTN(FIRHOLE & DUNRAVEN)	Gallatin	Nov-95	NULL
031	0012	85101	Pm10 - Local Conditions	FIREHOLE,W YLLSTN(FIRHOLE & DUNRAVEN)	Gallatin	Jan-98	NULL
031	0013	42101	Carbon Monoxide	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-98	NULL
031	0013	68102	Sample Volume	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-03	NULL
031	0013	68105	Ambient Avg Temperature	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-03	NULL
031	0013	68107	Sample Max Baro Pressure	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-03	NULL
031	0013	88101	Pm2.5 - Local Conditions	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-03	NULL
031	0013	68103	Ambient Min Temperature	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-03	NULL
031	0013	68109	Elapsed Sample Time	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-03	NULL
031	0013	68108	Sample Avg Baro Pressure	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-03	NULL
031	0013	68106	Sample Min Baro Pressure	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-03	NULL
031	0013	68104	Ambient Max Temperature	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-03	NULL

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
031	0013	68101	Sample Flow Rate- Cv	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-03	NULL
031	0013	61101	Wind Speed	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-98	Jan-99
031	0013	61106	Std Dev Hz Wind Direction	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Nov-98	Jan-99
031	0013	88101	Pm2.5 - Local Conditions	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Oct-03	NULL
031	0013	61102	Wind Direction	YLLSTN NAT'L PARK WEST ENTRANCE STATION	Gallatin	Nov-98	Jan-99
031	0014	61101	Wind Speed	4070 TRIDENT ROAD	Gallatin	Mar-00	Apr-01
031	0014	65102	Rain/Melt Precipitation	4070 TRIDENT ROAD	Gallatin	Mar-00	Apr-01
031	0014	63301	Solar Radiation	4070 TRIDENT ROAD	Gallatin	Mar-00	Apr-01
031	0014	62106	Temperature Difference	4070 TRIDENT ROAD	Gallatin	Mar-00	Apr-01
031	0014	62101	Outdoor Temperature	4070 TRIDENT ROAD	Gallatin	Mar-00	Apr-01
031	0014	62101	Outdoor Temperature	4070 TRIDENT ROAD	Gallatin	Mar-00	Apr-01
031	0014	61102	Wind Direction	4070 TRIDENT ROAD	Gallatin	Mar-00	Apr-01
031	0014	61106	Std Dev Hz Wind Direction	4070 TRIDENT ROAD	Gallatin	Mar-00	Apr-01
031	1001	11101	Suspended Particulate (Tsp)	W. GATE GARAGE,BOX 310,W. YELLOWSTONE	Gallatin	Jan-72	Dec-72
031	1001	11103	Benzene Soluble Organics(Tsp)	W. GATE GARAGE,BOX 310,W. YELLOWSTONE	Gallatin	Jan-72	Dec-72
031	1003	11101	Suspended Particulate (Tsp)	KOBER RESIDENCE,611 2ND AVE,THREE FORKS	Gallatin	Jan-77	Dec-78

033	0002	11101	Suspended Particulate (Tsp)	RANDY BILLINGS RANCH, JORDAN	Garfield	Jan-81	Dec-84
035	0001	11101	Suspended Particulate (Tsp)	ST MARY RANGER STATION (BABB)	Glacier	Jan-74	Dec-78
035	0001	12209	Fluoride (Paper Samplers)	ST MARY RANGER STATION (BABB)	Glacier	Jan-66	Dec-70
035	0001	42401	Sulfur Dioxide	ST MARY RANGER STATION (BABB)	Glacier	Jan-74	Dec-77
035	0001	42602	Nitrogen Dioxide	ST MARY RANGER STATION (BABB)	Glacier	Jan-74	Dec-78
035	0001	42602	Nitrogen Dioxide	ST MARY RANGER STATION (BABB)	Glacier	Jan-74	Jul-74
035	0007	11101	Suspended Particulate (Tsp)	FIRE WEATHER STATION	Glacier	Jan-80	Dec-85
035	0007	42410	Sulfation Rate	FIRE WEATHER STATION	Glacier	Jan-82	Dec-83
035	0007	12403	Sulfate (Tsp)	FIRE WEATHER STATION	Glacier	Jan-80	Dec-85
035	0007	12306	Nitrate (Tsp)	FIRE WEATHER STATION	Glacier	Jan-80	Dec-85
035	0007	12209	Fluoride (Paper Samplers)	FIRE WEATHER STATION	Glacier	Jan-80	Dec-82
035	0007	12209	Fluoride (Paper Samplers)	FIRE WEATHER STATION	Glacier	Jan-80	Dec-83
035	0007	12110	Cadmium (Tsp)	FIRE WEATHER STATION	Glacier	Jan-80	Dec-82
035	0007	12128	Lead (Tsp)	FIRE WEATHER STATION	Glacier	Jan-80	Dec-82
035	0010	11101	Suspended Particulate (Tsp)	ST. MARY RANGER STATION	Glacier	Jan-82	Dec-85
035	0010	42410	Sulfation Rate	ST. MARY RANGER STATION	Glacier	Jan-82	Dec-83
035	0010	12403	Sulfate (Tsp)	ST. MARY RANGER STATION	Glacier	Jan-80	Dec-85
035	0010	12306	Nitrate (Tsp)	ST. MARY RANGER STATION	Glacier	Jan-80	Dec-85

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
035	0010	12209	Fluoride (Paper Samplers)	ST. MARY RANGER STATION	Glacier	Jan-82	Dec-83
035	0010	12209	Fluoride (Paper Samplers)	ST. MARY RANGER STATION	Glacier	Jan-82	Dec-82
035	0019	42410	Sulfation Rate	MANY GLACIER PARK ENTRANCE	Glacier	Jan-82	Dec-83
035	0020	42410	Sulfation Rate	TWO MEDICINE PARK ENTRANCE	Glacier	Jan-82	Dec-83
035	0021	21101	Total Dustfall (Sp)	HIGGINS DUSTFALL,109 2ND ST NE,CUT BANK	Glacier	Mar-92	Oct-96
035	0021	25101	Dustfall Combustible (Sp)	HIGGINS DUSTFALL,109 2ND ST NE,CUT BANK	Glacier	Mar-92	Oct-96
039	0005	11101	Suspended Particulate (Tsp)	MCKINLEY RES (PHILLIPSBURG)	Granite	Jan-72	Dec-80
039	0005	11103	Benzene Soluble Organics(Tsp)	MCKINLEY RES (PHILLIPSBURG)	Granite	Jan-72	Dec-72
041	0001	11101	Suspended Particulate (Tsp)	CITY BUILDING, 520 4TH ST	Hill	Jan-80	Dec-83
043	0004	11101	Suspended Particulate (Tsp)	KLEFFNER RESIDENCE STATION #4	Jefferson	Jan-71	Dec-71
043	0004	12103	Arsenic (Tsp)	KLEFFNER RESIDENCE STATION #4	Jefferson	Jan-71	Dec-71
043	0004	12128	Lead (Tsp)	KLEFFNER RESIDENCE STATION #4	Jefferson	Jan-71	Dec-71
043	0004	12167	Zinc (Tsp)	KLEFFNER RESIDENCE STATION #4	Jefferson	Jan-71	Dec-71
043	0004	12110	Cadmium (Tsp)	KLEFFNER RESIDENCE STATION #4	Jefferson	Jan-71	Dec-71
043	0007	42401	Sulfur Dioxide	MCCLELLAN CREEK ROAD SE OF EAST HELENA	Jefferson	Jan-72	Dec-75
043	0010	11101	Suspended Particulate (Tsp)	GOLDEN SUNLIGHT-DOWNWIND 2000,WHITEHALL	Jefferson	Aug-81	Aug-87

043	0010	11101	Suspended Particulate (Tsp)	GOLDEN SUNLIGHT-DOWNWIND 2000,WHITEHALL	Jefferson	Aug-81	Aug-87
043	0011	11101	Suspended Particulate (Tsp)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Aug-81	Sep-90
043	0011	12103	Arsenic (Tsp)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Jul-90	Sep-90
043	0011	12112	Chromium (Tsp)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Jul-90	Sep-90
043	0011	61101	Wind Speed	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Jan-84	Mar-92
043	0011	81102	Pm10 Total 0-10um Stp	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Sep-90	Dec-97
043	0011	12128	Lead (Tsp)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Jul-90	Sep-90
043	0011	85101	Pm10 - Local Conditions	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Jan-98	Apr-01
043	0011	82167	Zinc (Pm10) Stp	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Sep-90	Dec-91
043	0011	82128	Lead (Pm10) Stp	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Sep-90	Dec-91
043	0011	82112	Chromium (Pm10) Stp	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Sep-90	Dec-91
043	0011	82110	Cadmium (Pm10) Stp	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Sep-90	Dec-91
043	0011	82103	Arsenic (Pm10) Stp	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Sep-90	Dec-91
043	0011	62101	Outdoor Temperature	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Jan-83	Mar-92
043	0011	61106	Std Dev Hz Wind Direction	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Oct-90	Mar-92
043	0011	61102	Wind Direction	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Jan-84	Mar-92
043	0011	12167	Zinc (Tsp)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Jul-90	Sep-90
043	0011	12110	Cadmium (Tsp)	GOLDEN SUNLIGHT #1(1000),3 MI NE WHTHALL	Jefferson	Jul-90	Sep-90

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
043	0012	11101	Suspended Particulate (Tsp)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Oct-87	Sep-90
043	0012	11101	Suspended Particulate (Tsp)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jan-83	Sep-90
043	0012	12103	Arsenic (Tsp)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jul-90	Dec-90
043	0012	12110	Cadmium (Tsp)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jul-90	Dec-90
043	0012	12128	Lead (Tsp)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jul-90	Dec-90
043	0012	81102	Pm10 Total 0-10um Stp	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Sep-90	Dec-97
043	0012	85101	Pm10 - Local Conditions	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jan-98	Apr-01
043	0012	82167	Zinc (Pm10) Stp	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jul-90	Dec-91
043	0012	82128	Lead (Pm10) Stp	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jul-90	Dec-91
043	0012	82112	Chromium (Pm10) Stp	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jul-90	Dec-91
043	0012	82110	Cadmium (Pm10) Stp	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jul-90	Dec-91
043	0012	82103	Arsenic (Pm10) Stp	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jul-90	Dec-91
043	0012	12167	Zinc (Tsp)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jul-90	Dec-90
043	0012	12112	Chromium (Tsp)	GOLDEN SUNLIGHT #2(4000) 3 MI NE WHTHALL	Jefferson	Jul-90	Dec-90
043	0013	11101	Suspended Particulate (Tsp)	CORBIN #1, CORBIN, MT	Jefferson	Jan-84	Dec-84
043	0014	11101	Suspended Particulate (Tsp)	CORBIN #2, CORBIN, MT	Jefferson	Jan-84	Dec-84

043	0015	11101	Suspended Particulate (Tsp)	CORBIN #3, CORBIN, MT	Jefferson	Jan-84	Dec-84
043	0015	61101	Wind Speed	CORBIN #3, CORBIN, MT	Jefferson	Jan-84	Dec-84
043	0015	61102	Wind Direction	CORBIN #3, CORBIN, MT	Jefferson	Jan-84	Dec-84
043	0017	61101	Wind Speed	WICKES - 2.5 MI NW	Jefferson	Jan-84	Dec-84
043	0017	61102	Wind Direction	WICKES - 2.5 MI NW	Jefferson	Jan-84	Dec-84
043	0019	11101	Suspended Particulate (Tsp)	MONTANA TUNNELS-RANCH SITE #1A	Jefferson	Feb-86	Dec-87
043	0019	85101	Pm10 - Local Conditions	MONTANA TUNNELS-RANCH SITE #1A	Jefferson	Jan-98	NULL
043	0019	82128	Lead (Pm10) Stp	MONTANA TUNNELS-RANCH SITE #1A	Jefferson	Jan-88	Dec-91
043	0019	82103	Arsenic (Pm10) Stp	MONTANA TUNNELS-RANCH SITE #1A	Jefferson	Jan-88	Dec-91
043	0019	81102	Pm10 Total 0-10um Stp	MONTANA TUNNELS-RANCH SITE #1A	Jefferson	Dec-87	Dec-97
043	0019	81102	Pm10 Total 0-10um Stp	MONTANA TUNNELS-RANCH SITE #1A	Jefferson	Dec-87	Dec-91
043	0020	11101	Suspended Particulate (Tsp)	MONTANA TUNNELS-WICKES FLAT #2	Jefferson	Feb-86	May-92
043	0020	12128	Lead (Tsp)	MONTANA TUNNELS-WICKES FLAT #2	Jefferson	Jan-89	Dec-91
043	0020	61102	Wind Direction	MONTANA TUNNELS-WICKES FLAT #2	Jefferson	Mar-86	Mar-92
043	0020	85101	Pm10 - Local Conditions	MONTANA TUNNELS-WICKES FLAT #2	Jefferson	Jan-98	Jul-99
043	0020	81102	Pm10 Total 0-10um Stp	MONTANA TUNNELS-WICKES FLAT #2	Jefferson	Mar-86	Dec-97
043	0020	62101	Outdoor Temperature	MONTANA TUNNELS-WICKES FLAT #2	Jefferson	Apr-90	Mar-92
043	0020	61106	Std Dev Hz Wind Direction	MONTANA TUNNELS-WICKES FLAT #2	Jefferson	Apr-90	Mar-92

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
043	0020	61101	Wind Speed	MONTANA TUNNELS-WICKES FLAT #2	Jefferson	Mar-86	Mar-92
043	0020	12103	Arsenic (Tsp)	MONTANA TUNNELS-WICKES FLAT #2	Jefferson	Jan-89	Dec-91
043	0021	11101	Suspended Particulate (Tsp)	MONTANA TUNNELS-MINA MINE #3	Jefferson	Mar-86	Mar-89
043	0022	11101	Suspended Particulate (Tsp)	MONTANA TUNNELS-CLANCY CREEK #4	Jefferson	Mar-86	May-92
043	0022	85101	Pm10 - Local Conditions	MONTANA TUNNELS-CLANCY CREEK #4	Jefferson	Jan-98	NULL
043	0022	81102	Pm10 Total 0-10um Stp	MONTANA TUNNELS-CLANCY CREEK #4	Jefferson	May-92	Dec-97
043	0022	12103	Arsenic (Tsp)	MONTANA TUNNELS-CLANCY CREEK #4	Jefferson	Jan-89	Dec-91
043	0022	12128	Lead (Tsp)	MONTANA TUNNELS-CLANCY CREEK #4	Jefferson	Jan-89	Dec-91
043	0023	11101	Suspended Particulate (Tsp)	MONTANA TUNNELS-TAILINGS DAM #5	Jefferson	Feb-88	May-92
043	0023	12103	Arsenic (Tsp)	MONTANA TUNNELS-TAILINGS DAM #5	Jefferson	Jan-89	Dec-91
043	0023	81102	Pm10 Total 0-10um Stp	MONTANA TUNNELS-TAILINGS DAM #5	Jefferson	May-92	Mar-93
043	0023	12128	Lead (Tsp)	MONTANA TUNNELS-TAILINGS DAM #5	Jefferson	Jan-89	Dec-91
043	0024	61101	Wind Speed	GOLD FIELDS MINING-BOULDER FLATS #1	Jefferson	Nov-89	Dec-91
043	0024	61102	Wind Direction	GOLD FIELDS MINING-BOULDER FLATS #1	Jefferson	Nov-89	Dec-91
043	0024	82103	Arsenic (Pm10) Stp	GOLD FIELDS MINING-BOULDER FLATS #1	Jefferson	Nov-89	Dec-90
043	0024	81102	Pm10 Total 0-10um Stp	GOLD FIELDS MINING-BOULDER FLATS #1	Jefferson	Nov-89	Dec-91

043	0024	61106	Std Dev Hz Wind Direction	GOLD FIELDS MINING-BOULDER FLATS #1	Jefferson	Nov-89	Dec-91
043	0024	82110	Cadmium (Pm10) Stp	GOLD FIELDS MINING-BOULDER FLATS #1	Jefferson	Nov-89	Dec-90
043	0024	82128	Lead (Pm10) Stp	GOLD FIELDS MINING-BOULDER FLATS #1	Jefferson	Nov-89	Dec-90
043	0024	82167	Zinc (Pm10) Stp	GOLD FIELDS MINING-BOULDER FLATS #1	Jefferson	Nov-89	Dec-90
043	0024	82112	Chromium (Pm10) Stp	GOLD FIELDS MINING-BOULDER FLATS #1	Jefferson	Nov-89	Dec-90
043	0025	81102	Pm10 Total 0-10um Stp	GOLD FIELDS MINING-ELKHORN SITE #2	Jefferson	Nov-89	Dec-91
043	0025	82112	Chromium (Pm10) Stp	GOLD FIELDS MINING-ELKHORN SITE #2	Jefferson	Nov-89	Dec-90
043	0025	82110	Cadmium (Pm10) Stp	GOLD FIELDS MINING-ELKHORN SITE #2	Jefferson	Nov-89	Dec-90
043	0025	82103	Arsenic (Pm10) Stp	GOLD FIELDS MINING-ELKHORN SITE #2	Jefferson	Nov-89	Dec-90
043	0025	82128	Lead (Pm10) Stp	GOLD FIELDS MINING-ELKHORN SITE #2	Jefferson	Nov-89	Dec-90
043	0025	82167	Zinc (Pm10) Stp	GOLD FIELDS MINING-ELKHORN SITE #2	Jefferson	Nov-89	Dec-90
043	0026	61101	Wind Speed	GOLD FIELDS MINING-HEAGEN MINE #3	Jefferson	Nov-89	Dec-91
043	0026	82167	Zinc (Pm10) Stp	GOLD FIELDS MINING-HEAGEN MINE #3	Jefferson	Dec-89	Dec-90
043	0026	82128	Lead (Pm10) Stp	GOLD FIELDS MINING-HEAGEN MINE #3	Jefferson	Dec-89	Dec-90
043	0026	82112	Chromium (Pm10) Stp	GOLD FIELDS MINING-HEAGEN MINE #3	Jefferson	Dec-89	Dec-90
043	0026	82110	Cadmium (Pm10) Stp	GOLD FIELDS MINING-HEAGEN MINE #3	Jefferson	Dec-89	Dec-90
043	0026	82103	Arsenic (Pm10) Stp	GOLD FIELDS MINING-HEAGEN MINE #3	Jefferson	Dec-89	Dec-90
043	0026	81102	Pm10 Total 0-10um Stp	GOLD FIELDS MINING-HEAGEN MINE #3	Jefferson	Nov-89	Dec-91

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
043	0026	62101	Outdoor Temperature	GOLD FIELDS MINING-HEAGEN MINE #3	Jefferson	Nov-89	Dec-91
043	0026	61102	Wind Direction	GOLD FIELDS MINING-HEAGEN MINE #3	Jefferson	Nov-89	Dec-91
043	0026	61106	Std Dev Hz Wind Direction	GOLD FIELDS MINING-HEAGEN MINE #3	Jefferson	Nov-89	Dec-91
043	0709	61101	Wind Speed	PEGASUS GOLD-BASIN CR MINE, UPWIND #1	Jefferson	Apr-87	Dec-90
043	0709	62101	Outdoor Temperature	PEGASUS GOLD-BASIN CR MINE, UPWIND #1	Jefferson	Jan-89	Dec-90
043	0709	61106	Std Dev Hz Wind Direction	PEGASUS GOLD-BASIN CR MINE, UPWIND #1	Jefferson	Aug-89	Dec-90
043	0709	61102	Wind Direction	PEGASUS GOLD-BASIN CR MINE, UPWIND #1	Jefferson	Apr-87	Dec-90
043	0709	81102	Pm10 Total 0-10um Stp	PEGASUS GOLD-BASIN CR MINE, UPWIND #1	Jefferson	Aug-88	Jan-90
043	0710	11101	Suspended Particulate (Tsp)	PEGASUS GOLD-BASIN CR MINE, DOWNWIND #2	Jefferson	Aug-88	Jul-89
043	0710	81102	Pm10 Total 0-10um Stp	PEGASUS GOLD-BASIN CR MINE, DOWNWIND #2	Jefferson	Aug-88	Dec-89
043	0711	81102	Pm10 Total 0-10um Stp	PEGASUS GOLD-BASIN CR,UPWIND #3,RIMINI	Jefferson	Feb-90	Dec-97
043	0711	85101	Pm10 - Local Conditions	PEGASUS GOLD-BASIN CR,UPWIND #3,RIMINI	Jefferson	Jan-98	Nov-98
043	0902	42401	Sulfur Dioxide	SADDLE MOUNTAIN	Jefferson	Jan-74	Dec-77
043	0903	11101	Suspended Particulate (Tsp)	MICROWAVE SITE	Jefferson	Jan-74	Dec-91
043	0903	12101	Aluminum (Tsp)	MICROWAVE SITE	Jefferson	Jan-78	Dec-79
043	0903	12103	Arsenic (Tsp)	MICROWAVE SITE	Jefferson	Jan-78	Dec-79

043	0903	12112	Chromium (Tsp)	MICROWAVE SITE	Jefferson	Jan-78	Dec-79
043	0903	12126	Iron (Tsp)	MICROWAVE SITE	Jefferson	Jan-78	Dec-79
043	0903	61102	Wind Direction	MICROWAVE SITE	Jefferson	Jan-78	Dec-79
043	0903	61101	Wind Speed	MICROWAVE SITE	Jefferson	Jan-78	Dec-79
043	0903	42410	Sulfation Rate	MICROWAVE SITE	Jefferson	Jan-78	Dec-81
043	0903	42401	Sulfur Dioxide	MICROWAVE SITE	Jefferson	May-76	May-01
043	0903	42401	Sulfur Dioxide	MICROWAVE SITE	Jefferson	Jan-74	Dec-79
043	0903	42401	Sulfur Dioxide	MICROWAVE SITE	Jefferson	Jan-73	Dec-79
043	0903	42401	Sulfur Dioxide	MICROWAVE SITE	Jefferson	Jan-73	Jul-74
043	0903	12403	Sulfate (Tsp)	MICROWAVE SITE	Jefferson	Jan-77	Dec-79
043	0903	12306	Nitrate (Tsp)	MICROWAVE SITE	Jefferson	Jan-78	Dec-79
043	0903	12306	Nitrate (Tsp)	MICROWAVE SITE	Jefferson	Jan-77	Dec-77
043	0903	12167	Zinc (Tsp)	MICROWAVE SITE	Jefferson	Jan-78	Dec-79
043	0903	12164	Vanadium (Tsp)	MICROWAVE SITE	Jefferson	Jan-78	Dec-79
043	0903	12136	Nickel (Tsp)	MICROWAVE SITE	Jefferson	Jan-78	Dec-79
043	0903	12132	Manganese (Tsp)	MICROWAVE SITE	Jefferson	Jan-78	Dec-79
043	0903	12128	Lead (Tsp)	MICROWAVE SITE	Jefferson	Jan-77	Dec-91
043	0903	12114	Copper (Tsp)	MICROWAVE SITE	Jefferson	Jan-78	Dec-79

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
043	0903	12110	Cadmium (Tsp)	MICROWAVE SITE	Jefferson	Jan-78	Dec-79
043	0904	42401	Sulfur Dioxide	BROUDY RANCH, MONTANA CITY, MT	Jefferson	Jan-77	Dec-81
043	0904	42410	Sulfation Rate	BROUDY RANCH, MONTANA CITY, MT	Jefferson	Jan-78	Dec-81
043	0905	11101	Suspended Particulate (Tsp)	MONTANA CITY SCHOOL	Jefferson	Jan-81	Dec-89
043	0905	12128	Lead (Tsp)	MONTANA CITY SCHOOL	Jefferson	Jan-81	Dec-85
043	0906	42401	Sulfur Dioxide	ASARCO-HIGHWAY 518, EAST HELENA	Jefferson	Dec-86	Dec-89
043	0906	61102	Wind Direction	ASARCO-HIGHWAY 518, EAST HELENA	Jefferson	Jan-88	Dec-88
043	0906	61101	Wind Speed	ASARCO-HIGHWAY 518, EAST HELENA	Jefferson	Jan-88	Dec-88
043	0907	42401	Sulfur Dioxide	ASARCO-ADAMS RANCH, BEHIND ASH GROVE	Jefferson	Jan-86	Dec-88
043	0907	61102	Wind Direction	ASARCO-ADAMS RANCH, BEHIND ASH GROVE	Jefferson	Jan-86	Dec-88
043	0907	61101	Wind Speed	ASARCO-ADAMS RANCH, BEHIND ASH GROVE	Jefferson	Jan-86	Dec-88
043	0908	42401	Sulfur Dioxide	ASARCO-ASH GROVE SIDING, MONTANA CITY	Jefferson	Sep-89	Jun-97
043	0909	42401	Sulfur Dioxide	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	Jefferson	Apr-93	Jun-97
043	0909	61102	Wind Direction	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	Jefferson	Apr-93	Jun-97
043	0909	61103	Resultant Speed	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	Jefferson	Apr-93	Jan-96
043	0909	62101	Outdoor Temperature	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	Jefferson	Apr-93	Jun-97

043	0909	61110	Std Dev Vt Wind Speed	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	Jefferson	Apr-93	Dec-94
043	0909	61109	Vertical Wind Speed	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	Jefferson	Apr-93	Dec-94
043	0909	61106	Std Dev Hz Wind Direction	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	Jefferson	Apr-93	Jun-97
043	0909	61104	Resultant Direction	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	Jefferson	Apr-93	Jan-96
043	0909	61102	Wind Direction	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	Jefferson	Apr-93	Dec-94
043	0909	61101	Wind Speed	ASARCO-TOP OF MICROWAVE HILL, E. HELENA	Jefferson	Apr-93	Jun-97
043	0910	42401	Sulfur Dioxide	ASARCO-MCCLELLAN CREEK RD #3, E. HELENA	Jefferson	Apr-93	Jun-97
043	0911	42401	Sulfur Dioxide	ASARCO-MCCLELLAN CREEK RD #4, E. HELENA	Jefferson	Apr-93	May-01
043	0911	61101	Wind Speed	ASARCO-MCCLELLAN CREEK RD #4, E. HELENA	Jefferson	Sep-97	May-01
043	0911	62101	Outdoor Temperature	ASARCO-MCCLELLAN CREEK RD #4, E. HELENA	Jefferson	Sep-97	May-01
043	0911	61106	Std Dev Hz Wind Direction	ASARCO-MCCLELLAN CREEK RD #4, E. HELENA	Jefferson	Sep-97	May-01
043	0911	61102	Wind Direction	ASARCO-MCCLELLAN CREEK RD #4, E. HELENA	Jefferson	Sep-97	May-01
043	0912	42401	Sulfur Dioxide	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	Jefferson	Apr-93	Jun-97
043	0912	61102	Wind Direction	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	Jefferson	Apr-93	Jun-97
043	0912	61103	Resultant Speed	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	Jefferson	Apr-93	Jan-96
043	0912	62101	Outdoor Temperature	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	Jefferson	Apr-93	Jun-97
043	0912	61110	Std Dev Vt Wind Speed	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	Jefferson	Apr-93	Dec-94
043	0912	61109	Vertical Wind Speed	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	Jefferson	Apr-93	Dec-94

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
043	0912	61106	Std Dev Hz Wind Direction	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	Jefferson	Apr-93	Jun-97
043	0912	61104	Resultant Direction	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	Jefferson	Apr-93	Jan-96
043	0912	61102	Wind Direction	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	Jefferson	Apr-93	Dec-94
043	0912	61101	Wind Speed	ASARCO-MCCLELLAN CREEK RD #5, E. HELENA	Jefferson	Apr-93	Jun-97
043	0913	42401	Sulfur Dioxide	ASARCO-MCCLELLAN CREEK RD #6, E. HELENA	Jefferson	Apr-93	May-01
043	0914	42401	Sulfur Dioxide	ASARCO-MCCLELLAN CREEK RD #7, E. HELENA	Jefferson	Apr-93	Jun-97
043	0915	42401	Sulfur Dioxide	ASARCO-MCCLELLAN CREEK RD #8, E. HELENA	Jefferson	Apr-93	Jun-97
043	0916	42401	Sulfur Dioxide	ASARCO-MCCLELLAN CREEK RD #9, E. HELENA	Jefferson	Apr-93	Jun-97
047	0007	11101	Suspended Particulate (Tsp)	JH HANSON RESIDENCE NEAR POLSON	Lake	Jan-73	Dec-73
047	0008	11101	Suspended Particulate (Tsp)	ANKOR RASMUSSEN RESIDENCE	Lake	Jan-73	Dec-73
047	0010	11101	Suspended Particulate (Tsp)	MARY LOZAR RESIDENCE, E OF POLSON, MT	Lake	Jan-79	Dec-83
047	0010	12403	Sulfate (Tsp)	MARY LOZAR RESIDENCE, E OF POLSON, MT	Lake	Jan-79	Dec-83
047	0010	61102	Wind Direction	MARY LOZAR RESIDENCE, E OF POLSON, MT	Lake	Jan-80	Dec-83
047	0010	62101	Outdoor Temperature	MARY LOZAR RESIDENCE, E OF POLSON, MT	Lake	Jan-80	Dec-83
047	0010	61101	Wind Speed	MARY LOZAR RESIDENCE, E OF POLSON, MT	Lake	Jan-80	Dec-83
047	0010	12306	Nitrate (Tsp)	MARY LOZAR RESIDENCE, E OF POLSON, MT	Lake	Jan-79	Dec-83

047	0011	11101	Suspended Particulate (Tsp)	RONAN, MT	Lake	Jan-78	Dec-81
047	0011	12306	Nitrate (Tsp)	RONAN, MT	Lake	Jan-79	Dec-80
047	0011	12403	Sulfate (Tsp)	RONAN, MT	Lake	Jan-79	Dec-80
047	0012	11101	Suspended Particulate (Tsp)	RONAN-NINEPIPE	Lake	Jan-80	Dec-83
047	0012	12403	Sulfate (Tsp)	RONAN-NINEPIPE	Lake	Jan-80	Dec-83
047	0012	61102	Wind Direction	RONAN-NINEPIPE	Lake	Jan-80	Dec-83
047	0012	61101	Wind Speed	RONAN-NINEPIPE	Lake	Jan-80	Dec-83
047	0012	12306	Nitrate (Tsp)	RONAN-NINEPIPE	Lake	Jan-80	Dec-83
047	0012	11203	Light Scatter	RONAN-NINEPIPE	Lake	Jan-81	Dec-83
047	0015	11101	Suspended Particulate (Tsp)	GYM ROOF IN EAST ARLEE	Lake	Jan-81	Dec-82
047	0015	11101	Suspended Particulate (Tsp)	GYM ROOF IN EAST ARLEE	Lake	Jan-81	Dec-81
047	0015	81101	Size Fractionated Particulate	GYM ROOF IN EAST ARLEE	Lake	Jan-81	Dec-81
047	0016	11101	Suspended Particulate (Tsp)	CENTRAL EVARO	Lake	Jan-81	Dec-81
047	0017	11101	Suspended Particulate (Tsp)	SWAN RIVER YOUTH FOREST CAMP	Lake	Jan-82	Dec-82
047	0017	12306	Nitrate (Tsp)	SWAN RIVER YOUTH FOREST CAMP	Lake	Jan-82	Dec-82
047	0017	12403	Sulfate (Tsp)	SWAN RIVER YOUTH FOREST CAMP	Lake	Jan-82	Dec-82
047	0019	12209	Fluoride (Paper Samplers)	BLUE BAY 17 MILES SO. OF BIGFORK, MT	Lake	Jan-82	Dec-82
047	0019	42410	Sulfation Rate	BLUE BAY 17 MILES SO. OF BIGFORK, MT	Lake	Jan-82	Dec-82

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
047	0020	12209	Fluoride (Paper Samplers)	BOULDER 10 MILES NE OF POLSON, MT	Lake	Jan-82	Dec-82
047	0020	42410	Sulfation Rate	BOULDER 10 MILES NE OF POLSON, MT	Lake	Jan-82	Dec-82
047	0021	12209	Fluoride (Paper Samplers)	NARROWS 9 MI. NE OF POLSON, MT	Lake	Jan-82	Dec-82
047	0021	42410	Sulfation Rate	NARROWS 9 MI. NE OF POLSON, MT	Lake	Jan-82	Dec-82
047	0022	12209	Fluoride (Paper Samplers)	JETLE 7 MI. NE OF POLSON, MT	Lake	Jan-82	Dec-82
047	0022	42410	Sulfation Rate	JETLE 7 MI. NE OF POLSON, MT	Lake	Jan-82	Dec-82
047	0023	12209	Fluoride (Paper Samplers)	SUNNY SLOPE II 6 MI. NO. OF POLSON, MT	Lake	Jan-82	Dec-82
047	0023	42410	Sulfation Rate	SUNNY SLOPE II 6 MI. NO. OF POLSON, MT	Lake	Jan-82	Dec-82
047	0025	12209	Fluoride (Paper Samplers)	BIG SAM 6 MI. NO. OF EVARO, MT	Lake	Jan-82	Dec-82
047	0025	42410	Sulfation Rate	BIG SAM 6 MI. NO. OF EVARO, MT	Lake	Jan-82	Dec-82
047	0026	12209	Fluoride (Paper Samplers)	SADDLE MTN #1 4 MI. W. OF ARLEE, MT	Lake	Jan-82	Dec-82
047	0026	42410	Sulfation Rate	SADDLE MTN #1 4 MI. W. OF ARLEE, MT	Lake	Jan-82	Dec-82
047	0027	12209	Fluoride (Paper Samplers)	SADDLE MTN #2 4 MI. W. OF ARLEE, MT	Lake	Jan-82	Dec-82
047	0027	42410	Sulfation Rate	SADDLE MTN #2 4 MI. W. OF ARLEE, MT	Lake	Jan-82	Dec-82
049	0001	11101	Suspended Particulate (Tsp)	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Jan-57	Dec-87
049	0001	11101	Suspended Particulate (Tsp)	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Jan-79	Dec-80

049	0001	12128	Lead (Tsp)	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Jan-89	Jan-97
049	0001	12403	Sulfate (Tsp)	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Jan-82	Dec-82
049	0001	42401	Sulfur Dioxide	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Jan-75	Dec-77
049	0001	82403	Sulfate (Pm10) Stp	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Sep-96	Jun-97
049	0001	82306	Nitrate (Pm10) Stp	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Sep-96	Jun-97
049	0001	81102	Pm10 Total 0-10um Stp	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Apr-87	Dec-90
049	0001	81102	Pm10 Total 0-10um Stp	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Jan-85	Dec-87
049	0001	81102	Pm10 Total 0-10um Stp	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Apr-87	Sep-97
049	0001	81102	Pm10 Total 0-10um Stp	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	May-85	Dec-87
049	0001	42401	Sulfur Dioxide	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Jan-74	Dec-75
049	0001	12209	Fluoride (Paper Samplers)	COGSWELL BLDG, 1401 LOCKEY	Lewis and Clark	Jan-66	Dec-70
049	0002	11101	Suspended Particulate (Tsp)	COGSWELL BLDG #2	Lewis and Clark	Jan-78	Dec-78
049	0003	42401	Sulfur Dioxide	WEGNER RANCH	Lewis and Clark	Jan-72	Dec-72
049	0003	42401	Sulfur Dioxide	WEGNER RANCH	Lewis and Clark	Jan-72	Dec-72
049	0006	11101	Suspended Particulate (Tsp)	120 E MAIN (E. HELENA)	Lewis and Clark	Jan-72	Jan-74
049	0006	12103	Arsenic (Tsp)	120 E MAIN (E. HELENA)	Lewis and Clark	Jan-72	Jan-74
049	0006	12110	Cadmium (Tsp)	120 E MAIN (E. HELENA)	Lewis and Clark	Jan-72	Jan-74
049	0006	12167	Zinc (Tsp)	120 E MAIN (E. HELENA)	Lewis and Clark	Jan-72	Jan-74

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
049	0006	12128	Lead (Tsp)	120 E MAIN (E. HELENA)	Lewis and Clark	Jan-72	Jan-74
049	0007	11101	Suspended Particulate (Tsp)	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	Lewis and Clark	Jan-83	Dec-83
049	0007	12103	Arsenic (Tsp)	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	Lewis and Clark	Jul-83	Dec-83
049	0007	12128	Lead (Tsp)	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	Lewis and Clark	Jan-83	Dec-83
049	0007	12114	Copper (Tsp)	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	Lewis and Clark	Jan-83	Dec-83
049	0007	12110	Cadmium (Tsp)	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	Lewis and Clark	Jan-83	Dec-83
049	0007	12167	Zinc (Tsp)	SCHNEIDER RESIDENCE, 525 PRICKLY PEAR	Lewis and Clark	Jan-83	Dec-83
049	0008	11101	Suspended Particulate (Tsp)	A&W EAST HELENA	Lewis and Clark	Dec-79	Dec-81
049	0008	12112	Chromium (Tsp)	A&W EAST HELENA	Lewis and Clark	Dec-79	Dec-80
049	0008	42401	Sulfur Dioxide	A&W EAST HELENA	Lewis and Clark	Dec-79	Dec-81
049	0008	12403	Sulfate (Tsp)	A&W EAST HELENA	Lewis and Clark	Jan-80	Dec-80
049	0008	12306	Nitrate (Tsp)	A&W EAST HELENA	Lewis and Clark	Jan-80	Dec-80
049	0008	12167	Zinc (Tsp)	A&W EAST HELENA	Lewis and Clark	Jan-81	Dec-81
049	0008	12164	Vanadium (Tsp)	A&W EAST HELENA	Lewis and Clark	Dec-79	Dec-80
049	0008	12136	Nickel (Tsp)	A&W EAST HELENA	Lewis and Clark	Dec-79	Dec-80
049	0008	12132	Manganese (Tsp)	A&W EAST HELENA	Lewis and Clark	Dec-79	Dec-80

049	0008	12128	Lead (Tsp)	A&W EAST HELENA	Lewis and Clark	Dec-79	Dec-81
049	0008	12114	Copper (Tsp)	A&W EAST HELENA	Lewis and Clark	Dec-79	Dec-81
049	0008	61102	Wind Direction	A&W EAST HELENA	Lewis and Clark	Jan-80	Dec-80
049	0008	61101	Wind Speed	A&W EAST HELENA	Lewis and Clark	Jan-80	Dec-80
049	0008	42410	Sulfation Rate	A&W EAST HELENA	Lewis and Clark	Jan-80	Dec-81
049	0008	12110	Cadmium (Tsp)	A&W EAST HELENA	Lewis and Clark	Dec-79	Dec-81
049	0008	12103	Arsenic (Tsp)	A&W EAST HELENA	Lewis and Clark	Dec-79	Dec-81
049	0009	81102	Pm10 Total 0-10um Stp	1065 PHILLIPS LANE	Lewis and Clark	Jun-85	Dec-87
049	0009	81102	Pm10 Total 0-10um Stp	1065 PHILLIPS LANE	Lewis and Clark	Apr-87	Dec-87
049	0011	11101	Suspended Particulate (Tsp)	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-79	Dec-79
049	0011	42410	Sulfation Rate	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-78	Dec-81
049	0011	42401	Sulfur Dioxide	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-75	Dec-79
049	0011	12403	Sulfate (Tsp)	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-79	Dec-79
049	0011	12306	Nitrate (Tsp)	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-79	Dec-79
049	0011	12164	Vanadium (Tsp)	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-79	Dec-79
049	0011	12136	Nickel (Tsp)	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-79	Dec-79
049	0011	12132	Manganese (Tsp)	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-79	Dec-79
049	0011	12128	Lead (Tsp)	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-79	Dec-79

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
049	0011	12114	Copper (Tsp)	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-79	Dec-79
049	0011	12112	Chromium (Tsp)	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-79	Dec-79
049	0011	12103	Arsenic (Tsp)	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-79	Dec-79
049	0011	12110	Cadmium (Tsp)	PHELPS DODGE CORP.SEVEN-UP PETE #2	Lewis and Clark	Jan-79	Dec-79
049	0012	11101	Suspended Particulate (Tsp)	PHELPS DODGE CORP.MCDONALD MEADOWS #1	Lewis and Clark	Jan-80	Dec-81
049	0012	12128	Lead (Tsp)	PHELPS DODGE CORP.MCDONALD MEADOWS #1	Lewis and Clark	Jan-80	Dec-81
049	0013	11101	Suspended Particulate (Tsp)	CAPITAL COURTS, 1013 DEARBORN AVE	Lewis and Clark	Jan-80	Dec-88
049	0013	12403	Sulfate (Tsp)	CAPITAL COURTS, 1013 DEARBORN AVE	Lewis and Clark	Jan-82	Dec-82
049	0014	11101	Suspended Particulate (Tsp)	SUNHAVEN, 117 VALLEY DRIVE, HELENA	Lewis and Clark	Jan-81	Dec-81
049	0015	11101	Suspended Particulate (Tsp)	SUPERSAVE GROCERY, NORTHGATE SHOPPING	Lewis and Clark	Jan-82	Dec-82
049	0016	11101	Suspended Particulate (Tsp)	COONEY HOME, 3404 COONEY DR, N. HELENA	Lewis and Clark	Jan-82	Dec-85
049	0018	11203	Light Scatter	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Dec-88	Feb-93
049	0018	68101	Sample Flow Rate- Cv	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-99	NULL
049	0018	61102	Wind Direction	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Dec-88	Dec-89
049	0018	61101	Wind Speed	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Dec-88	Dec-89
049	0018	68102	Sample Volume	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-99	NULL

049	0018	68104	Ambient Max Temperature	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-99	NULL
049	0018	68106	Sample Min Baro Pressure	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-99	NULL
049	0018	88101	Pm2.5 - Local Conditions	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-99	NULL
049	0018	85101	Pm10 - Local Conditions	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-00	NULL
049	0018	85101	Pm10 - Local Conditions	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-98	NULL
049	0018	81102	Pm10 Total 0-10um Stp	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Oct-93	NULL
049	0018	81102	Pm10 Total 0-10um Stp	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Nov-88	Dec-89
049	0018	81102	Pm10 Total 0-10um Stp	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Oct-88	NULL
049	0018	68109	Elapsed Sample Time	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-99	NULL
049	0018	68108	Sample Avg Baro Pressure	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-99	NULL
049	0018	68107	Sample Max Baro Pressure	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-99	NULL
049	0018	68105	Ambient Avg Temperature	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-99	NULL
049	0018	68103	Ambient Min Temperature	LINCOLN SCHOOL PARKING LOT, 1325 POPLAR	Lewis and Clark	Jan-99	NULL
049	0019	88101	Pm2.5 - Local Conditions	US 200	Lewis and Clark	Jan-03	NULL
049	0019	68101	Sample Flow Rate- Cv	US 200	Lewis and Clark	Jan-03	NULL
049	0019	68102	Sample Volume	US 200	Lewis and Clark	Jan-03	NULL
049	0019	68103	Ambient Min Temperature	US 200	Lewis and Clark	Jan-03	NULL
049	0019	68105	Ambient Avg Temperature	US 200	Lewis and Clark	Jan-03	NULL

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
049	0019	68107	Sample Max Baro Pressure	US 200	Lewis and Clark	Jan-03	NULL
049	0019	68109	Elapsed Sample Time	US 200	Lewis and Clark	Jan-03	NULL
049	0019	68108	Sample Avg Baro Pressure	US 200	Lewis and Clark	Jan-03	NULL
049	0019	68106	Sample Min Baro Pressure	US 200	Lewis and Clark	Jan-03	NULL
049	0019	68104	Ambient Max Temperature	US 200	Lewis and Clark	Jan-03	NULL
049	0020	61101	Wind Speed	PEGASUS GOLD-BASIN CR,DOWNWIND #4,RIMINI	Lewis and Clark	Feb-91	Nov-95
049	0020	61102	Wind Direction	PEGASUS GOLD-BASIN CR,DOWNWIND #4,RIMINI	Lewis and Clark	Feb-91	Nov-95
049	0020	61106	Std Dev Hz Wind Direction	PEGASUS GOLD-BASIN CR,DOWNWIND #4,RIMINI	Lewis and Clark	Feb-91	Nov-95
049	0020	62101	Outdoor Temperature	PEGASUS GOLD-BASIN CR,DOWNWIND #4,RIMINI	Lewis and Clark	Feb-91	Nov-95
049	0020	85101	Pm10 - Local Conditions	PEGASUS GOLD-BASIN CR,DOWNWIND #4,RIMINI	Lewis and Clark	Jan-98	Oct-98
049	0020	81102	Pm10 Total 0-10um Stp	PEGASUS GOLD-BASIN CR,DOWNWIND #4,RIMINI	Lewis and Clark	Jan-90	Oct-97
049	0021	61101	Wind Speed	INLAND GOLD-BIG BLACKFOOT,CEMETERY #1	Lewis and Clark	May-90	May-91
049	0021	61102	Wind Direction	INLAND GOLD-BIG BLACKFOOT,CEMETERY #1	Lewis and Clark	May-90	May-91
049	0021	81102	Pm10 Total 0-10um Stp	INLAND GOLD-BIG BLACKFOOT,CEMETERY #1	Lewis and Clark	May-90	May-91
049	0021	62101	Outdoor Temperature	INLAND GOLD-BIG BLACKFOOT,CEMETERY #1	Lewis and Clark	May-90	May-91
049	0021	61106	Std Dev Hz Wind Direction	INLAND GOLD-BIG BLACKFOOT,CEMETERY #1	Lewis and Clark	May-90	May-91

049	0021	82103	Arsenic (Pm10) Stp	INLAND GOLD-BIG BLACKFOOT,CEMETERY #1	Lewis and Clark	May-90	May-91
049	0021	82112	Chromium (Pm10) Stp	INLAND GOLD-BIG BLACKFOOT,CEMETERY #1	Lewis and Clark	May-90	May-91
049	0021	82167	Zinc (Pm10) Stp	INLAND GOLD-BIG BLACKFOOT,CEMETERY #1	Lewis and Clark	May-90	May-91
049	0021	82128	Lead (Pm10) Stp	INLAND GOLD-BIG BLACKFOOT,CEMETERY #1	Lewis and Clark	May-90	May-91
049	0021	82110	Cadmium (Pm10) Stp	INLAND GOLD-BIG BLACKFOOT,CEMETERY #1	Lewis and Clark	May-90	May-91
049	0022	81102	Pm10 Total 0-10um Stp	INLAND GOLD-BIG BLACKFOOT,ANDERSON #2	Lewis and Clark	May-90	May-91
049	0022	82103	Arsenic (Pm10) Stp	INLAND GOLD-BIG BLACKFOOT,ANDERSON #2	Lewis and Clark	May-90	May-91
049	0022	82110	Cadmium (Pm10) Stp	INLAND GOLD-BIG BLACKFOOT,ANDERSON #2	Lewis and Clark	May-90	May-91
049	0022	82112	Chromium (Pm10) Stp	INLAND GOLD-BIG BLACKFOOT,ANDERSON #2	Lewis and Clark	May-90	May-91
049	0022	82167	Zinc (Pm10) Stp	INLAND GOLD-BIG BLACKFOOT,ANDERSON #2	Lewis and Clark	May-90	May-91
049	0022	82128	Lead (Pm10) Stp	INLAND GOLD-BIG BLACKFOOT,ANDERSON #2	Lewis and Clark	May-90	May-91
049	0023	81102	Pm10 Total 0-10um Stp	INLAND GOLD-BIG BLACKFOOT-POWERLINE #3	Lewis and Clark	Jul-90	May-91
049	0024	81102	Pm10 Total 0-10um Stp	HELENA-ROSSITER SCHOOL;1497 E SIERRA RD	Lewis and Clark	Nov-96	Jan-03
049	0024	85101	Pm10 - Local Conditions	HELENA-ROSSITER SCHOOL;1497 E SIERRA RD	Lewis and Clark	Jan-98	Jan-03
049	0025	68101	Sample Flow Rate- Cv	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jun-01	Dec-02
049	0025	68102	Sample Volume	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jun-01	Dec-02
049	0025	68103	Ambient Min Temperature	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jun-01	Dec-02
049	0025	68105	Ambient Avg Temperature	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jun-01	Dec-02

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
049	0025	68107	Sample Max Baro Pressure	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jun-01	Dec-02
049	0025	81102	Pm10 Total 0-10um Stp	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jul-01	Dec-02
049	0025	85101	Pm10 - Local Conditions	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jul-01	Dec-02
049	0025	88101	Pm2.5 - Local Conditions	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jun-01	Dec-02
049	0025	85101	Pm10 - Local Conditions	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jan-98	Jun-01
049	0025	81102	Pm10 Total 0-10um Stp	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Sep-97	Jun-01
049	0025	68109	Elapsed Sample Time	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jun-01	Dec-02
049	0025	68108	Sample Avg Baro Pressure	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jun-01	Dec-02
049	0025	68106	Sample Min Baro Pressure	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jun-01	Dec-02
049	0025	68104	Ambient Max Temperature	LINCOLN 1ST BANK;DOWNTOWN US HWY 200	Lewis and Clark	Jun-01	Dec-02
049	0026	81102	Pm10 Total 0-10um Stp	1497 SIERRA ROAD EAST	Lewis and Clark	Jan-03	NULL
049	0026	85101	Pm10 - Local Conditions	1497 SIERRA ROAD EAST	Lewis and Clark	Jan-03	NULL
049	0701	42401	Sulfur Dioxide	ASARCO-KLEFFNER ROAD, EAST HELENA	Lewis and Clark	Dec-68	Jun-97
049	0702	42401	Sulfur Dioxide	ASARCO-WATER TANK, EAST HELENA	Lewis and Clark	Dec-68	May-01
049	0703	11101	Suspended Particulate (Tsp)	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Sep-99	Dec-00
049	0703	61101	Wind Speed	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Dec-89	Jun-97

049	0703	42401	Sulfur Dioxide	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Dec-68	May-01
049	0703	12128	Lead (Tsp)	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Sep-99	Dec-00
049	0703	61102	Wind Direction	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049	0703	61103	Resultant Speed	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Apr-93	Jan-96
049	0703	61106	Std Dev Hz Wind Direction	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049	0703	62101	Outdoor Temperature	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049	0703	61110	Std Dev Vt Wind Speed	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Apr-93	Dec-94
049	0703	61109	Vertical Wind Speed	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Apr-93	Dec-94
049	0703	61104	Resultant Direction	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Apr-93	Jan-96
049	0703	61102	Wind Direction	ASARCO-KENNEDY PARK, EAST HELENA	Lewis and Clark	Apr-93	Dec-94
049	0711	42401	Sulfur Dioxide	ASARCO-EAST, EAST HELENA	Lewis and Clark	May-76	Jun-92
049	0712	11101	Suspended Particulate (Tsp)	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049	0712	12114	Copper (Tsp)	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049	0712	42410	Sulfation Rate	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049	0712	12167	Zinc (Tsp)	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049	0712	12128	Lead (Tsp)	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049	0712	12110	Cadmium (Tsp)	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049	0712	12103	Arsenic (Tsp)	ASARCO-VOLLMER RESIDENCE, E OF SMELTER	Lewis and Clark	Jan-81	Dec-81

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
049 0713	11101 Suspended Particulate (Tsp)	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049 0713	12110 Cadmium (Tsp)	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049 0713	12128 Lead (Tsp)	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049 0713	42410 Sulfation Rate	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049 0713	12167 Zinc (Tsp)	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049 0713	12114 Copper (Tsp)	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049 0713	12103 Arsenic (Tsp)	ASARCO-CANAL, 3/4 MI EAST OF SMELTER	Lewis and Clark	Jan-81	Dec-81
049 0714	11101 Suspended Particulate (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-00
049 0714	11101 Suspended Particulate (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-81
049 0714	12103 Arsenic (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-81
049 0714	12110 Cadmium (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-81
049 0714	12136 Nickel (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jul-95	Dec-00
049 0714	12128 Lead (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-81
049 0714	12128 Lead (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-00
049 0714	12126 Iron (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-81
049 0714	12126 Iron (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-81

049	0714	12114	Copper (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-81
049	0714	12114	Copper (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Feb-81	Dec-00
049	0714	12112	Chromium (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-81
049	0714	12112	Chromium (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-00
049	0714	62101	Outdoor Temperature	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Dec-89	Jun-97
049	0714	61106	Std Dev Hz Wind Direction	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Dec-89	Jun-97
049	0714	61102	Wind Direction	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Dec-89	Jun-97
049	0714	61101	Wind Speed	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Dec-89	Jun-97
049	0714	42410	Sulfation Rate	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-81
049	0714	12167	Zinc (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-83	Dec-00
049	0714	12160	Tin (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-87	Dec-88
049	0714	12110	Cadmium (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Feb-81	Dec-00
049	0714	12103	Arsenic (Tsp)	FIREHALL,CORNER PACIFIC&MORTON,E.HELENA	Lewis and Clark	Jan-81	Dec-00
049	0715	11101	Suspended Particulate (Tsp)	ASARCO-PADBURY, SO OF HIWAY DEPT	Lewis and Clark	Jan-81	Dec-81
049	0715	12114	Copper (Tsp)	ASARCO-PADBURY, SO OF HIWAY DEPT	Lewis and Clark	Jan-81	Dec-81
049	0715	12110	Cadmium (Tsp)	ASARCO-PADBURY, SO OF HIWAY DEPT	Lewis and Clark	Jan-81	Dec-81
049	0715	12103	Arsenic (Tsp)	ASARCO-PADBURY, SO OF HIWAY DEPT	Lewis and Clark	Jan-81	Dec-81
049	0715	12128	Lead (Tsp)	ASARCO-PADBURY, SO OF HIWAY DEPT	Lewis and Clark	Jan-81	Dec-81

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
049	0715	12167	Zinc (Tsp)	ASARCO-PADBURY, SO OF HIWAY DEPT	Lewis and Clark	Jan-81	Dec-81
049	0716	11101	Suspended Particulate (Tsp)	KLEFFNER FIELD	Lewis and Clark	Jan-81	Dec-85
049	0716	12167	Zinc (Tsp)	KLEFFNER FIELD	Lewis and Clark	Oct-81	Dec-85
049	0716	12128	Lead (Tsp)	KLEFFNER FIELD	Lewis and Clark	Jan-81	Dec-85
049	0716	12114	Copper (Tsp)	KLEFFNER FIELD	Lewis and Clark	Oct-81	Dec-85
049	0716	12103	Arsenic (Tsp)	KLEFFNER FIELD	Lewis and Clark	Jan-81	Dec-85
049	0716	12110	Cadmium (Tsp)	KLEFFNER FIELD	Lewis and Clark	Oct-81	Dec-85
049	0719	11101	Suspended Particulate (Tsp)	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jan-81	Jun-93
049	0719	12103	Arsenic (Tsp)	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jan-81	Dec-85
049	0719	12110	Cadmium (Tsp)	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jan-82	Dec-85
049	0719	81102	Pm10 Total 0-10um Stp	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jul-88	Mar-93
049	0719	61102	Wind Direction	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jan-81	Dec-81
049	0719	61101	Wind Speed	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jan-81	Dec-81
049	0719	12167	Zinc (Tsp)	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jan-82	Dec-85
049	0719	12167	Zinc (Tsp)	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Oct-81	Dec-85
049	0719	12128	Lead (Tsp)	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jan-82	Dec-90

049	0719	12128	Lead (Tsp)	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jan-81	Jun-93
049	0719	12114	Copper (Tsp)	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jan-82	Dec-85
049	0719	12114	Copper (Tsp)	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Oct-81	Dec-85
049	0719	82128	Lead (Pm10) Stp	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jul-88	Aug-91
049	0719	12110	Cadmium (Tsp)	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Oct-81	Dec-85
049	0719	11101	Suspended Particulate (Tsp)	HADFIELD, 101 WEST MAIN, EAST HELENA	Lewis and Clark	Jan-81	Dec-90
049	0721	61101	Wind Speed	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049	0721	61101	Wind Speed	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049	0721	61102	Wind Direction	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049	0721	61102	Wind Direction	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Apr-93	Dec-94
049	0721	61103	Resultant Speed	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Apr-93	Jan-96
049	0721	62106	Temperature Difference	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Dec-89	Dec-91
049	0721	62106	Temperature Difference	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Dec-89	Dec-91
049	0721	62101	Outdoor Temperature	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Apr-93	Jun-97
049	0721	62101	Outdoor Temperature	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049	0721	62101	Outdoor Temperature	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049	0721	62101	Outdoor Temperature	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049	0721	61110	Std Dev Vt Wind Speed	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Apr-93	Dec-94

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
049 0721	61110 Std Dev Vt Wind Speed	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Apr-93	Dec-94
049 0721	61109 Vertical Wind Speed	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Apr-93	Dec-94
049 0721	61109 Vertical Wind Speed	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Apr-93	Dec-94
049 0721	61106 Std Dev Hz Wind Direction	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049 0721	61106 Std Dev Hz Wind Direction	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049 0721	61104 Resultant Direction	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Apr-93	Jan-96
049 0721	61104 Resultant Direction	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Apr-93	Jan-96
049 0721	61103 Resultant Speed	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Apr-93	Jan-96
049 0721	61102 Wind Direction	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Apr-93	Dec-94
049 0721	61102 Wind Direction	ASARCO - ZINC PLANT, EAST HELENA	Lewis and Clark	Dec-89	Jun-97
049 0722	11101 Suspended Particulate (Tsp)	DARTMAN RANCH, NORTH OF EAST HELENA	Lewis and Clark	Jan-82	Dec-83
049 0722	12103 Arsenic (Tsp)	DARTMAN RANCH, NORTH OF EAST HELENA	Lewis and Clark	Sep-82	Dec-83
049 0722	12110 Cadmium (Tsp)	DARTMAN RANCH, NORTH OF EAST HELENA	Lewis and Clark	Jan-82	Dec-83
049 0722	12114 Copper (Tsp)	DARTMAN RANCH, NORTH OF EAST HELENA	Lewis and Clark	Jan-82	Dec-83
049 0722	12167 Zinc (Tsp)	DARTMAN RANCH, NORTH OF EAST HELENA	Lewis and Clark	Jan-82	Dec-83
049 0722	12128 Lead (Tsp)	DARTMAN RANCH, NORTH OF EAST HELENA	Lewis and Clark	Jan-82	Dec-83

049	0724	11101	Suspended Particulate (Tsp)	DARTMAN FIELD, NORTH OF EAST HELENA	Lewis and Clark	Jan-83	Aug-99
049	0724	12103	Arsenic (Tsp)	DARTMAN FIELD, NORTH OF EAST HELENA	Lewis and Clark	Jun-83	Dec-85
049	0724	12128	Lead (Tsp)	DARTMAN FIELD, NORTH OF EAST HELENA	Lewis and Clark	Jun-83	Aug-99
049	0724	12114	Copper (Tsp)	DARTMAN FIELD, NORTH OF EAST HELENA	Lewis and Clark	Jan-83	Dec-88
049	0724	12110	Cadmium (Tsp)	DARTMAN FIELD, NORTH OF EAST HELENA	Lewis and Clark	Jan-83	Dec-85
049	0724	12167	Zinc (Tsp)	DARTMAN FIELD, NORTH OF EAST HELENA	Lewis and Clark	Jan-83	Dec-89
049	0724	82114	Copper (Pm10) Stp	DARTMAN FIELD, NORTH OF EAST HELENA	Lewis and Clark	Nov-87	Dec-88
049	0724	82128	Lead (Pm10) Stp	DARTMAN FIELD, NORTH OF EAST HELENA	Lewis and Clark	Nov-87	Dec-89
049	0724	81102	Pm10 Total 0-10um Stp	DARTMAN FIELD, NORTH OF EAST HELENA	Lewis and Clark	Nov-87	Dec-89
049	0726	11101	Suspended Particulate (Tsp)	OLD RR,HWY 518,E HELENA	Lewis and Clark	Nov-89	Dec-01
049	0726	61102	Wind Direction	OLD RR,HWY 518,E HELENA	Lewis and Clark	Dec-89	Jun-02
049	0726	61101	Wind Speed	OLD RR,HWY 518,E HELENA	Lewis and Clark	Dec-89	Jun-02
049	0726	12128	Lead (Tsp)	OLD RR,HWY 518,E HELENA	Lewis and Clark	Nov-89	Dec-01
049	0726	61102	Wind Direction	OLD RR,HWY 518,E HELENA	Lewis and Clark	Apr-93	Dec-94
049	0726	61104	Resultant Direction	OLD RR,HWY 518,E HELENA	Lewis and Clark	Apr-93	Jan-96
049	0726	61109	Vertical Wind Speed	OLD RR,HWY 518,E HELENA	Lewis and Clark	Apr-93	Dec-94
049	0726	62101	Outdoor Temperature	OLD RR,HWY 518,E HELENA	Lewis and Clark	Dec-89	Jun-02
049	0726	61110	Std Dev Vt Wind Speed	OLD RR,HWY 518,E HELENA	Lewis and Clark	Apr-93	Dec-94

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
049	0726	61106	Std Dev Hz Wind Direction	OLD RR,HWY 518,E HELENA	Lewis and Clark	Dec-89	Jun-02
049	0726	61103	Resultant Speed	OLD RR,HWY 518,E HELENA	Lewis and Clark	Apr-93	Jan-96
049	0727	11101	Suspended Particulate (Tsp)	PRICKLY PEAR CRK, 21 EAST PACIFIC	Lewis and Clark	Nov-93	Dec-01
049	0727	12114	Copper (Tsp)	PRICKLY PEAR CRK, 21 EAST PACIFIC	Lewis and Clark	May-94	Dec-01
049	0727	12128	Lead (Tsp)	PRICKLY PEAR CRK, 21 EAST PACIFIC	Lewis and Clark	Nov-93	Dec-01
049	1002	11101	Suspended Particulate (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-74	Dec-85
049	1002	42410	Sulfation Rate	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-78	Dec-81
049	1002	12403	Sulfate (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-77	Dec-80
049	1002	12306	Nitrate (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-78	Dec-80
049	1002	12306	Nitrate (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-77	Dec-77
049	1002	12167	Zinc (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Sep-78	Dec-85
049	1002	12164	Vanadium (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-78	Dec-80
049	1002	12136	Nickel (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-78	Dec-80
049	1002	12132	Manganese (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-78	Dec-80
049	1002	12128	Lead (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-77	Dec-85
049	1002	12126	Iron (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-78	Dec-81

049	1002	12114	Copper (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Sep-78	Dec-85
049	1002	12112	Chromium (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-78	Dec-81
049	1002	12110	Cadmium (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-78	Dec-85
049	1002	12101	Aluminum (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-78	Dec-79
049	1002	12103	Arsenic (Tsp)	HASTIE RESIDENCE, 212 PACIFIC ST	Lewis and Clark	Jan-78	Dec-85
053	0001	11101	Suspended Particulate (Tsp)	JACK BROWN RESIDENCE TROY,MONTANA	Lincoln	Jan-77	Dec-78
053	0002	11101	Suspended Particulate (Tsp)	RAY SAMPSON RESIDENCE SOUTH OF TROY, MON	Lincoln	Jan-77	Dec-78
053	0004	11101	Suspended Particulate (Tsp)	ASARCO-TROY,LITTLE JOE,TROY	Lincoln	Jan-82	Dec-90
053	0005	11101	Suspended Particulate (Tsp)	REUTER RESIDENCE	Lincoln	Jan-72	Dec-73
053	0005	12128	Lead (Tsp)	REUTER RESIDENCE	Lincoln	Jan-72	Dec-72
053	0005	12167	Zinc (Tsp)	REUTER RESIDENCE	Lincoln	Jan-72	Dec-72
053	0005	12110	Cadmium (Tsp)	REUTER RESIDENCE	Lincoln	Jan-72	Dec-72
053	0006	21101	Total Dustfall (Sp)	BURRIS RESIDENCE, SOUTH OF TROY	Lincoln	Jan-84	Dec-85
053	0007	11101	Suspended Particulate (Tsp)	KENDALL FIELD, FARM TO MARKET ROAD	Lincoln	May-87	Dec-87
053	0007	81102	Pm10 Total 0-10um Stp	KENDALL FIELD, FARM TO MARKET ROAD	Lincoln	Nov-87	Dec-88
053	0009	11101	Suspended Particulate (Tsp)	SVERDRUP RESIDENCE, 120 LARCH	Lincoln	Jan-74	Dec-77
053	0010	11101	Suspended Particulate (Tsp)	BROWN RESIDENCE, 1119 DAKOTA	Lincoln	Jan-77	Dec-85
053	0010	12403	Sulfate (Tsp)	BROWN RESIDENCE, 1119 DAKOTA	Lincoln	Jan-79	Dec-82

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
053	0010	12306	Nitrate (Tsp)	BROWN RESIDENCE, 1119 DAKOTA	Lincoln	Jan-79	Dec-80
053	0012	11101	Suspended Particulate (Tsp)	LINCOLN CO COURTHOUSE,418 MINERAL AVE	Lincoln	Jan-83	Dec-87
053	0012	11101	Suspended Particulate (Tsp)	LINCOLN CO COURTHOUSE,418 MINERAL AVE	Lincoln	Jan-84	Dec-87
053	0012	81102	Pm10 Total 0-10um Stp	LINCOLN CO COURTHOUSE,418 MINERAL AVE	Lincoln	Jan-85	Dec-87
053	0012	81102	Pm10 Total 0-10um Stp	LINCOLN CO COURTHOUSE,418 MINERAL AVE	Lincoln	Apr-87	Mar-95
053	0012	81102	Pm10 Total 0-10um Stp	LINCOLN CO COURTHOUSE,418 MINERAL AVE	Lincoln	May-85	Dec-87
053	0012	81102	Pm10 Total 0-10um Stp	LINCOLN CO COURTHOUSE,418 MINERAL AVE	Lincoln	Apr-87	Dec-90
053	0013	11203	Light Scatter	RIVER SITE, LIBBY, MT	Lincoln	Jan-85	Dec-86
053	0017	21101	Total Dustfall (Sp)	HORELICK 707 MICHIGAN AVE LIBBY MT	Lincoln	Jan-85	May-93
053	0017	25101	Dustfall Combustible (Sp)	HORELICK 707 MICHIGAN AVE LIBBY MT	Lincoln	Jan-85	May-93
053	0018	88101	Pm2.5 - Local Conditions	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-05	NULL
053	0018	61101	Wind Speed	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Nov-87	Dec-88
053	0018	11203	Light Scatter	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Dec-86	Oct-93
053	0018	61102	Wind Direction	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Nov-87	Dec-88
053	0018	68101	Sample Flow Rate- Cv	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-99	NULL
053	0018	68103	Ambient Min Temperature	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-99	NULL

053	0018	68105	Ambient Avg Temperature	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-99	NULL
053	0018	88101	Pm2.5 - Local Conditions	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-02	NULL
053	0018	85101	Pm10 - Local Conditions	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Oct-02	NULL
053	0018	81102	Pm10 Total 0-10um Stp	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Oct-02	NULL
053	0018	68109	Elapsed Sample Time	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-02	NULL
053	0018	68108	Sample Avg Baro Pressure	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-02	NULL
053	0018	68107	Sample Max Baro Pressure	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-02	NULL
053	0018	68106	Sample Min Baro Pressure	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-02	NULL
053	0018	68104	Ambient Max Temperature	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-02	NULL
053	0018	68103	Ambient Min Temperature	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-02	NULL
053	0018	68102	Sample Volume	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-02	NULL
053	0018	68101	Sample Flow Rate- Cv	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-02	NULL
053	0018	68105	Ambient Avg Temperature	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-02	NULL
053	0018	88101	Pm2.5 - Local Conditions	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-99	NULL
053	0018	85101	Pm10 - Local Conditions	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-00	NULL
053	0018	81102	Pm10 Total 0-10um Stp	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Oct-93	NULL
053	0018	68109	Elapsed Sample Time	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-99	NULL
053	0018	68108	Sample Avg Baro Pressure	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-99	NULL

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
053	0018	68107	Sample Max Baro Pressure	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-99	NULL
053	0018	68106	Sample Min Baro Pressure	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-99	NULL
053	0018	68104	Ambient Max Temperature	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-99	NULL
053	0018	68102	Sample Volume	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jan-99	NULL
053	0018	61106	Std Dev Hz Wind Direction	COUNTY COURTHOUSE ANNEX - LIBBY	Lincoln	Jul-88	Dec-88
053	0019	81102	Pm10 Total 0-10um Stp	TROY HIGH SCHOOL,116 E MISSOULA, TROY	Lincoln	Oct-91	Jun-95
053	1005	11101	Suspended Particulate (Tsp)	LINCOLN ELEC CO-OP, HWY 93 NEAR EUREKA	Lincoln	Jan-84	Dec-87
053	1005	81102	Pm10 Total 0-10um Stp	LINCOLN ELEC CO-OP, HWY 93 NEAR EUREKA	Lincoln	Oct-87	Dec-92
055	0001	11101	Suspended Particulate (Tsp)	TV HILL (FORT PECK)	McCone	Jan-74	Dec-79
055	0001	42401	Sulfur Dioxide	TV HILL (FORT PECK)	McCone	Jan-74	Dec-75
055	0001	42602	Nitrogen Dioxide	TV HILL (FORT PECK)	McCone	Jan-74	Dec-75
055	0001	61102	Wind Direction	TV HILL (FORT PECK)	McCone	Jan-78	Dec-79
055	0001	61101	Wind Speed	TV HILL (FORT PECK)	McCone	Jan-78	Dec-79
055	0001	42602	Nitrogen Dioxide	TV HILL (FORT PECK)	McCone	Jan-76	Dec-78
055	0001	42401	Sulfur Dioxide	TV HILL (FORT PECK)	McCone	Jan-76	Dec-77
055	0001	11101	Suspended Particulate (Tsp)	TV HILL (FORT PECK)	McCone	Jan-74	Dec-79

057	0001	11101	Suspended Particulate (Tsp)	CYPRUS IND-YELLOWSTONE MINE #1,THREE FK	Madison	Jan-84	Dec-89
057	0001	11101	Suspended Particulate (Tsp)	CYPRUS IND-YELLOWSTONE MINE #1,THREE FK	Madison	Jan-83	Dec-84
057	0003	11101	Suspended Particulate (Tsp)	CYPRUS IND-YELLOWSTONE MINE #3,THREE FK	Madison	Jan-83	Dec-84
057	0003	61101	Wind Speed	CYPRUS IND-YELLOWSTONE MINE #3,THREE FK	Madison	Jan-84	Dec-84
057	0003	62101	Outdoor Temperature	CYPRUS IND-YELLOWSTONE MINE #3,THREE FK	Madison	Jan-84	Dec-84
057	0003	61102	Wind Direction	CYPRUS IND-YELLOWSTONE MINE #3,THREE FK	Madison	Jan-84	Dec-84
057	0004	11101	Suspended Particulate (Tsp)	MONTANA TALC,JOHNNY GULCH NO. 1, ENNIS	Madison	Oct-85	Dec-89
057	0004	11101	Suspended Particulate (Tsp)	MONTANA TALC,JOHNNY GULCH NO. 1, ENNIS	Madison	Oct-85	Dec-86
057	0004	81102	Pm10 Total 0-10um Stp	MONTANA TALC,JOHNNY GULCH NO. 1, ENNIS	Madison	Apr-89	Jul-93
057	0005	11101	Suspended Particulate (Tsp)	MONTANA TALC UPWIND HIVOL,ENNIS	Madison	Feb-86	Sep-89
057	0005	81102	Pm10 Total 0-10um Stp	MONTANA TALC UPWIND HIVOL,ENNIS	Madison	Apr-89	Sep-95
057	0006	61101	Wind Speed	MONTANA TALC MET TRAILER, ENNIS	Madison	Sep-85	Sep-95
057	0006	61106	Std Dev Hz Wind Direction	MONTANA TALC MET TRAILER, ENNIS	Madison	Nov-93	Sep-95
057	0006	61102	Wind Direction	MONTANA TALC MET TRAILER, ENNIS	Madison	Sep-85	Sep-95
057	0007	81102	Pm10 Total 0-10um Stp	LUZENAC UPWIND SOUTH;12 M S OF CAMERON	Madison	Nov-89	Dec-97
057	0007	81102	Pm10 Total 0-10um Stp	LUZENAC UPWIND SOUTH;12 M S OF CAMERON	Madison	Oct-01	Sep-03
057	0007	85101	Pm10 - Local Conditions	LUZENAC UPWIND SOUTH;12 M S OF CAMERON	Madison	Jan-98	Sep-03
057	0008	81102	Pm10 Total 0-10um Stp	LUZENAC DOWNWIND NORTH;CAMERSON	Madison	Nov-89	Dec-97

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
057	0008	81102	Pm10 Total 0-10um Stp	LUZENAC DOWNWIND NORTH;CAMERSON	Madison	Oct-01	Sep-03
057	0008	85101	Pm10 - Local Conditions	LUZENAC DOWNWIND NORTH;CAMERSON	Madison	Jan-98	Sep-03
057	0009	61101	Wind Speed	YELLOWSTONE MINE-MET STATION, ENNIS	Madison	Dec-89	Sep-95
057	0009	61106	Std Dev Hz Wind Direction	YELLOWSTONE MINE-MET STATION, ENNIS	Madison	Dec-89	Sep-95
057	0009	61102	Wind Direction	YELLOWSTONE MINE-MET STATION, ENNIS	Madison	Dec-89	Sep-95
057	0009	62101	Outdoor Temperature	YELLOWSTONE MINE-MET STATION, ENNIS	Madison	Dec-89	Sep-95
061	0001	21101	Total Dustfall (Sp)	COX RESIDENCE,SAINT REGIS, MT 59866	Mineral	Jan-86	Dec-89
061	0001	25101	Dustfall Combustible (Sp)	COX RESIDENCE,SAINT REGIS, MT 59866	Mineral	Jan-86	Dec-89
063	0001	11101	Suspended Particulate (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-68	Dec-84
063	0001	42602	Nitrogen Dioxide	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-75	Dec-76
063	0001	42401	Sulfur Dioxide	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-75	Dec-76
063	0001	12403	Sulfate (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-71	Dec-76
063	0001	12403	Sulfate (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-77	Dec-83
063	0001	12306	Nitrate (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-78	Dec-80
063	0001	12167	Zinc (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-78	Dec-78
063	0001	12164	Vanadium (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-79	Dec-80

063	0001	12136	Nickel (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-78	Dec-80
063	0001	12132	Manganese (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-78	Dec-80
063	0001	12128	Lead (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-78	Dec-80
063	0001	12126	Iron (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-78	Dec-78
063	0001	12114	Copper (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-78	Dec-80
063	0001	12112	Chromium (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-78	Dec-80
063	0001	12110	Cadmium (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-78	Dec-80
063	0001	12103	Arsenic (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-78	Dec-80
063	0001	11101	Suspended Particulate (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-82	Dec-83
063	0001	12101	Aluminum (Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-78	Dec-78
063	0001	11103	Benzene Soluble Organics(Tsp)	COURTHOUSE ROOF,CORNER OF WOODY & W PINE	Missoula	Jan-71	Dec-77
063	0002	11101	Suspended Particulate (Tsp)	FT MISSOULA	Missoula	Jan-71	Dec-73
063	0002	11103	Benzene Soluble Organics(Tsp)	FT MISSOULA	Missoula	Jan-71	Dec-73
063	0002	12403	Sulfate (Tsp)	FT MISSOULA	Missoula	Jan-71	Dec-73
063	0003	42101	Carbon Monoxide	BROOK AND SOUTH	Missoula	Jan-77	Dec-78
063	0005	42101	Carbon Monoxide	MALFUNCTION JCT, SOUTH, BROOKS & RUSSELL	Missoula	Jan-79	NULL
063	0005	61101	Wind Speed	MALFUNCTION JCT, SOUTH, BROOKS & RUSSELL	Missoula	Jan-80	Mar-93
063	0005	61106	Std Dev Hz Wind Direction	MALFUNCTION JCT, SOUTH, BROOKS & RUSSELL	Missoula	Nov-90	Mar-93

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
063	0005	61102	Wind Direction	MALFUNCTION JCT, SOUTH, BROOKS & RUSSELL	Missoula	Jan-80	Mar-93
063	0008	11101	Suspended Particulate (Tsp)	RANGERS STA. SEELEY LAKE HIWAY 209	Missoula	Jan-71	Dec-72
063	0008	11103	Benzene Soluble Organics(Tsp)	RANGERS STA. SEELEY LAKE HIWAY 209	Missoula	Jan-71	Dec-72
063	0008	12403	Sulfate (Tsp)	RANGERS STA. SEELEY LAKE HIWAY 209	Missoula	Jan-71	Dec-72
063	0009	11101	Suspended Particulate (Tsp)	JOHNSON BELL FIELD,HIWAY 10 WEST	Missoula	Jan-71	Dec-78
063	0009	12403	Sulfate (Tsp)	JOHNSON BELL FIELD,HIWAY 10 WEST	Missoula	Jan-71	Dec-76
063	0009	11103	Benzene Soluble Organics(Tsp)	JOHNSON BELL FIELD,HIWAY 10 WEST	Missoula	Jan-71	Dec-77
063	0009	12403	Sulfate (Tsp)	JOHNSON BELL FIELD,HIWAY 10 WEST	Missoula	Jan-77	Dec-78
063	0010	11101	Suspended Particulate (Tsp)	BONNER ONE STATE FORESTRY OFFICE	Missoula	Jan-72	Dec-78
063	0010	11103	Benzene Soluble Organics(Tsp)	BONNER ONE STATE FORESTRY OFFICE	Missoula	Jan-72	Dec-73
063	0010	12403	Sulfate (Tsp)	BONNER ONE STATE FORESTRY OFFICE	Missoula	Jan-72	Dec-73
063	0011	11101	Suspended Particulate (Tsp)	BONNER TWO	Missoula	Jan-73	Dec-74
063	0012	88101	Pm2.5 - Local Conditions	HALF MILE NORTH HWY 200	Missoula	Aug-02	Sep-04
063	0012	68109	Elapsed Sample Time	HALF MILE NORTH HWY 200	Missoula	Aug-02	Sep-04
063	0012	68105	Ambient Avg Temperature	HALF MILE NORTH HWY 200	Missoula	Aug-02	Sep-04
063	0012	68106	Sample Min Baro Pressure	HALF MILE NORTH HWY 200	Missoula	Aug-02	Sep-04

063	0012	68108	Sample Avg Baro Pressure	HALF MILE NORTH HWY 200	Missoula	Aug-02	Sep-04
063	0012	68101	Sample Flow Rate- Cv	HALF MILE NORTH HWY 200	Missoula	Aug-02	Sep-04
063	0012	68103	Ambient Min Temperature	HALF MILE NORTH HWY 200	Missoula	Aug-02	Sep-04
063	0012	68104	Ambient Max Temperature	HALF MILE NORTH HWY 200	Missoula	Aug-02	Sep-04
063	0012	68107	Sample Max Baro Pressure	HALF MILE NORTH HWY 200	Missoula	Aug-02	Sep-04
063	0012	68102	Sample Volume	HALF MILE NORTH HWY 200	Missoula	Aug-02	Sep-04
063	0013	11101	Suspended Particulate (Tsp)	TARGET RANGE	Missoula	Jan-73	Dec-75
063	0014	11101	Suspended Particulate (Tsp)	FRENCHTOWN	Missoula	Jan-75	Dec-77
063	0014	11103	Benzene Soluble Organics(Tsp)	FRENCHTOWN	Missoula	Jan-77	Dec-77
063	0014	12403	Sulfate (Tsp)	FRENCHTOWN	Missoula	Jan-76	Dec-76
063	0014	12403	Sulfate (Tsp)	FRENCHTOWN	Missoula	Jan-77	Dec-77
063	0015	11101	Suspended Particulate (Tsp)	CHAMPION PACKAGING, FRENCHTOWN	Missoula	Jan-77	Dec-87
063	0015	11101	Suspended Particulate (Tsp)	CHAMPION PACKAGING, FRENCHTOWN	Missoula	Jan-82	Dec-87
063	0015	12403	Sulfate (Tsp)	CHAMPION PACKAGING, FRENCHTOWN	Missoula	Jan-77	Dec-86
063	0015	42402	Hydrogen Sulfide	CHAMPION PACKAGING, FRENCHTOWN	Missoula	Jan-85	Dec-87
063	0015	61102	Wind Direction	CHAMPION PACKAGING, FRENCHTOWN	Missoula	Jan-79	Dec-87
063	0015	61101	Wind Speed	CHAMPION PACKAGING, FRENCHTOWN	Missoula	Jan-79	Dec-87
063	0015	42401	Sulfur Dioxide	CHAMPION PACKAGING, FRENCHTOWN	Missoula	Jan-85	Dec-85

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
063	0015	11103	Benzene Soluble Organics(Tsp)	CHAMPION PACKAGING, FRENCHTOWN	Missoula	Jan-77	Dec-87
063	0016	11101	Suspended Particulate (Tsp)	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN	Missoula	Jan-77	Dec-92
063	0016	11103	Benzene Soluble Organics(Tsp)	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN	Missoula	Jan-77	Dec-77
063	0016	42401	Sulfur Dioxide	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN	Missoula	Jan-81	Dec-85
063	0016	81102	Pm10 Total 0-10um Stp	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN	Missoula	May-92	Dec-97
063	0016	85101	Pm10 - Local Conditions	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN	Missoula	Jan-98	NULL
063	0016	42402	Hydrogen Sulfide	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN	Missoula	Jan-81	NULL
063	0016	12403	Sulfate (Tsp)	STONE CONTAINER #2-WELL FIELD,FRENCHTOWN	Missoula	Jan-77	Dec-86
063	0017	11101	Suspended Particulate (Tsp)	CHAMPION PACKAGING, FRENCHTOWN, MT	Missoula	Jan-77	Dec-79
063	0017	12403	Sulfate (Tsp)	CHAMPION PACKAGING, FRENCHTOWN, MT	Missoula	Jan-77	Dec-78
063	0018	11101	Suspended Particulate (Tsp)	COURTHOUSE LAWN	Missoula	Jan-77	Dec-78
063	0018	12403	Sulfate (Tsp)	COURTHOUSE LAWN	Missoula	Jan-77	Dec-77
063	0018	12403	Sulfate (Tsp)	COURTHOUSE LAWN	Missoula	Jan-77	Dec-78
063	0019	11101	Suspended Particulate (Tsp)	LIONS PARK	Missoula	Jan-77	Dec-81
063	0019	12164	Vanadium (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-80
063	0019	12136	Nickel (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-80

063	0019	12132	Manganese (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-80
063	0019	12128	Lead (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-80
063	0019	12126	Iron (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-79
063	0019	12114	Copper (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-80
063	0019	12112	Chromium (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-80
063	0019	12110	Cadmium (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-80
063	0019	12107	Barium (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-78
063	0019	64101	Barometric Pressure	LIONS PARK	Missoula	Jan-79	Dec-80
063	0019	62101	Outdoor Temperature	LIONS PARK	Missoula	Jan-78	Dec-78
063	0019	61102	Wind Direction	LIONS PARK	Missoula	Jan-78	Dec-80
063	0019	61101	Wind Speed	LIONS PARK	Missoula	Jan-78	Dec-80
063	0019	44201	Ozone	LIONS PARK	Missoula	Jan-78	Dec-81
063	0019	43101	Total Hydrocarbons	LIONS PARK	Missoula	Jan-77	Dec-80
063	0019	42603	Oxides Of Nitrogen	LIONS PARK	Missoula	Jan-79	Dec-79
063	0019	42602	Nitrogen Dioxide	LIONS PARK	Missoula	Jan-77	Dec-84
063	0019	42601	Nitric Oxide	LIONS PARK	Missoula	Jan-79	Dec-79
063	0019	42401	Sulfur Dioxide	LIONS PARK	Missoula	Jan-77	Dec-81
063	0019	42101	Carbon Monoxide	LIONS PARK	Missoula	Jan-78	Dec-81

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
063	0019	12403	Sulfate (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-78
063	0019	12403	Sulfate (Tsp)	LIONS PARK	Missoula	Jan-77	Dec-80
063	0019	12306	Nitrate (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-80
063	0019	12167	Zinc (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-79
063	0019	11203	Light Scatter	LIONS PARK	Missoula	Jan-78	Dec-80
063	0019	12103	Arsenic (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-80
063	0019	12101	Aluminum (Tsp)	LIONS PARK	Missoula	Jan-78	Dec-79
063	0020	11101	Suspended Particulate (Tsp)	ROSE PARK	Missoula	Jan-78	Dec-87
063	0020	11101	Suspended Particulate (Tsp)	ROSE PARK	Missoula	Jan-82	Dec-83
063	0020	12403	Sulfate (Tsp)	ROSE PARK	Missoula	Jan-81	Dec-86
063	0020	42401	Sulfur Dioxide	ROSE PARK	Missoula	Jan-82	Dec-83
063	0020	61102	Wind Direction	ROSE PARK	Missoula	Jan-80	Dec-83
063	0020	81102	Pm10 Total 0-10um Stp	ROSE PARK	Missoula	Apr-87	Dec-87
063	0020	81102	Pm10 Total 0-10um Stp	ROSE PARK	Missoula	Jan-84	Dec-87
063	0020	81101	Size Fractionated Particulate	ROSE PARK	Missoula	Jan-84	Dec-87
063	0020	81101	Size Fractionated Particulate	ROSE PARK	Missoula	Jan-83	Dec-84

063	0020	62101	Outdoor Temperature	ROSE PARK	Missoula	Jan-81	Dec-83
063	0020	61101	Wind Speed	ROSE PARK	Missoula	Jan-80	Dec-83
063	0020	42101	Carbon Monoxide	ROSE PARK	Missoula	Jan-80	Dec-82
063	0020	11203	Light Scatter	ROSE PARK	Missoula	Jan-80	Dec-82
063	0021	81102	Pm10 Total 0-10um Stp	SEELEY LAKE US 83	Missoula	Dec-04	NULL
063	0021	85101	Pm10 - Local Conditions	SEELEY LAKE US 83	Missoula	Dec-04	NULL
063	0023	42101	Carbon Monoxide	DOWNTOWN CO,HIGGINS BETWN BROADWY & MAIN	Missoula	Jan-80	Dec-81
063	0024	11101	Suspended Particulate (Tsp)	BOYD PARK, 3100 WASHBURN	Missoula	Jan-81	Dec-87
063	0024	42101	Carbon Monoxide	BOYD PARK, 3100 WASHBURN	Missoula	Aug-81	Mar-91
063	0024	11101	Suspended Particulate (Tsp)	BOYD PARK, 3100 WASHBURN	Missoula	Jan-83	Dec-84
063	0024	68101	Sample Flow Rate- Cv	BOYD PARK, 3100 WASHBURN	Missoula	Jan-99	Mar-02
063	0024	68103	Ambient Min Temperature	BOYD PARK, 3100 WASHBURN	Missoula	Jan-99	Mar-02
063	0024	68105	Ambient Avg Temperature	BOYD PARK, 3100 WASHBURN	Missoula	Jan-99	Mar-02
063	0024	68107	Sample Max Baro Pressure	BOYD PARK, 3100 WASHBURN	Missoula	Jan-99	Mar-02
063	0024	88101	Pm2.5 - Local Conditions	BOYD PARK, 3100 WASHBURN	Missoula	Jan-99	Mar-02
063	0024	85101	Pm10 - Local Conditions	BOYD PARK, 3100 WASHBURN	Missoula	Jan-00	Mar-02
063	0024	85101	Pm10 - Local Conditions	BOYD PARK, 3100 WASHBURN	Missoula	Sep-99	Sep-99
063	0024	85101	Pm10 - Local Conditions	BOYD PARK, 3100 WASHBURN	Missoula	Jan-98	Aug-98

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
063	0024	82403	Sulfate (Pm10) Stp	BOYD PARK, 3100 WASHBURN	Missoula	Sep-96	Jun-97
063	0024	82306	Nitrate (Pm10) Stp	BOYD PARK, 3100 WASHBURN	Missoula	Sep-96	Jun-97
063	0024	81102	Pm10 Total 0-10um Stp	BOYD PARK, 3100 WASHBURN	Missoula	Jan-92	Mar-02
063	0024	81102	Pm10 Total 0-10um Stp	BOYD PARK, 3100 WASHBURN	Missoula	May-87	Dec-90
063	0024	81102	Pm10 Total 0-10um Stp	BOYD PARK, 3100 WASHBURN	Missoula	Jan-84	Sep-99
063	0024	81102	Pm10 Total 0-10um Stp	BOYD PARK, 3100 WASHBURN	Missoula	Oct-84	Dec-87
063	0024	81101	Size Fractionated Particulate	BOYD PARK, 3100 WASHBURN	Missoula	Jan-85	Jan-85
063	0024	81101	Size Fractionated Particulate	BOYD PARK, 3100 WASHBURN	Missoula	Jan-83	Dec-84
063	0024	68109	Elapsed Sample Time	BOYD PARK, 3100 WASHBURN	Missoula	Jan-99	Mar-02
063	0024	68108	Sample Avg Baro Pressure	BOYD PARK, 3100 WASHBURN	Missoula	Jan-99	Mar-02
063	0024	85101	Pm10 - Local Conditions	BOYD PARK, 3100 WASHBURN	Missoula	Apr-02	NULL
063	0024	81102	Pm10 Total 0-10um Stp	BOYD PARK, 3100 WASHBURN	Missoula	Apr-02	NULL
063	0024	68106	Sample Min Baro Pressure	BOYD PARK, 3100 WASHBURN	Missoula	Jan-99	Mar-02
063	0024	68104	Ambient Max Temperature	BOYD PARK, 3100 WASHBURN	Missoula	Jan-99	Mar-02
063	0024	68102	Sample Volume	BOYD PARK, 3100 WASHBURN	Missoula	Jan-99	Mar-02
063	0025	11101	Suspended Particulate (Tsp)	BEACON STREET	Missoula	Jan-82	Dec-83

063	0026	11101	Suspended Particulate (Tsp)	GLACIER DRIVE	Missoula	Jan-82	Dec-83
063	0029	11101	Suspended Particulate (Tsp)	BRIGGS AND RESERVE, MISSOULA 59801	Missoula	Jan-84	Dec-84
063	0029	81101	Size Fractionated Particulate	BRIGGS AND RESERVE, MISSOULA 59801	Missoula	Jan-84	Dec-86
063	0030	11101	Suspended Particulate (Tsp)	SPURGIN ROAD AND TOWER STREET, MISSOULA	Missoula	Jan-84	Dec-86
063	0031	11101	Suspended Particulate (Tsp)	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-85	Dec-87
063	0031	68101	Sample Flow Rate- Cv	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-99	NULL
063	0031	68102	Sample Volume	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-99	NULL
063	0031	11101	Suspended Particulate (Tsp)	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-85	Dec-87
063	0031	68103	Ambient Min Temperature	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-99	NULL
063	0031	68105	Ambient Avg Temperature	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-99	NULL
063	0031	68107	Sample Max Baro Pressure	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-99	NULL
063	0031	68109	Elapsed Sample Time	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-99	NULL
063	0031	85101	Pm10 - Local Conditions	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL
063	0031	81102	Pm10 Total 0-10um Stp	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL
063	0031	68109	Elapsed Sample Time	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL
063	0031	68108	Sample Avg Baro Pressure	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL
063	0031	68107	Sample Max Baro Pressure	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL
063	0031	68106	Sample Min Baro Pressure	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
063	0031	68105	Ambient Avg Temperature	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL
063	0031	68104	Ambient Max Temperature	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL
063	0031	68103	Ambient Min Temperature	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL
063	0031	68102	Sample Volume	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL
063	0031	68101	Sample Flow Rate- Cv	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL
063	0031	88101	Pm2.5 - Local Conditions	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-02	NULL
063	0031	88101	Pm2.5 - Local Conditions	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-99	NULL
063	0031	85101	Pm10 - Local Conditions	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-98	Mar-02
063	0031	81102	Pm10 Total 0-10um Stp	HEALTH DEPT, 301 WEST ALDER	Missoula	Apr-87	Mar-02
063	0031	81102	Pm10 Total 0-10um Stp	HEALTH DEPT, 301 WEST ALDER	Missoula	Sep-86	Dec-87
063	0031	81101	Size Fractionated Particulate	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-85	Dec-85
063	0031	68108	Sample Avg Baro Pressure	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-99	NULL
063	0031	68106	Sample Min Baro Pressure	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-99	NULL
063	0031	68104	Ambient Max Temperature	HEALTH DEPT, 301 WEST ALDER	Missoula	Jan-99	NULL
063	0032	11101	Suspended Particulate (Tsp)	RATTLESNAKE GRADE SCHOOL,120 PINEVIEW,MS	Missoula	Jan-86	Dec-87
063	0033	11101	Suspended Particulate (Tsp)	MT JUMBO SCHOOL, MINNESOTA & 6TH	Missoula	Jan-86	Nov-87

063	0033	81102	Pm10 Total 0-10um Stp	MT JUMBO SCHOOL, MINNESOTA & 6TH	Missoula	Dec-86	Nov-87
063	0033	81101	Size Fractionated Particulate	MT JUMBO SCHOOL, MINNESOTA & 6TH	Missoula	Jan-86	Dec-86
063	0033	81102	Pm10 Total 0-10um Stp	MT JUMBO SCHOOL, MINNESOTA & 6TH	Missoula	Apr-87	Nov-87
063	0034	11101	Suspended Particulate (Tsp)	STONE CONTAINER #1A, MOCCASIN LANE	Missoula	Oct-87	May-92
063	0034	42602	Nitrogen Dioxide	STONE CONTAINER #1A, MOCCASIN LANE	Missoula	Jan-87	Jun-92
063	0034	61102	Wind Direction	STONE CONTAINER #1A, MOCCASIN LANE	Missoula	Jan-87	NULL
063	0034	61106	Std Dev Hz Wind Direction	STONE CONTAINER #1A, MOCCASIN LANE	Missoula	Jun-93	NULL
063	0034	85101	Pm10 - Local Conditions	STONE CONTAINER #1A, MOCCASIN LANE	Missoula	Jan-98	NULL
063	0034	81102	Pm10 Total 0-10um Stp	STONE CONTAINER #1A, MOCCASIN LANE	Missoula	May-92	Dec-97
063	0034	61101	Wind Speed	STONE CONTAINER #1A, MOCCASIN LANE	Missoula	Jan-87	NULL
063	0034	42402	Hydrogen Sulfide	STONE CONTAINER #1A, MOCCASIN LANE	Missoula	Jan-87	NULL
063	0034	11101	Suspended Particulate (Tsp)	STONE CONTAINER #1A, MOCCASIN LANE	Missoula	Oct-87	Dec-90
063	0035	81102	Pm10 Total 0-10um Stp	LOLO LUBE CENTER;11555 S HWY 93	Missoula	Aug-97	Jun-00
063	0035	85101	Pm10 - Local Conditions	LOLO LUBE CENTER;11555 S HWY 93	Missoula	Jan-98	Jun-00
063	0036	42601	Nitric Oxide	DUCHARME AND MAIN STREET	Missoula	Jun-01	Jun-03
063	0036	44201	Ozone	DUCHARME AND MAIN STREET	Missoula	Jun-01	Nov-02
063	0036	61101	Wind Speed	DUCHARME AND MAIN STREET	Missoula	Jun-01	Jun-03
063	0036	61106	Std Dev Hz Wind Direction	DUCHARME AND MAIN STREET	Missoula	Jun-01	Jun-03

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
063	0036	62101	Outdoor Temperature	DUCHARME AND MAIN STREET	Missoula	Jun-01	Jun-03
063	0036	61102	Wind Direction	DUCHARME AND MAIN STREET	Missoula	Jun-01	Jun-03
063	0036	42602	Nitrogen Dioxide	DUCHARME AND MAIN STREET	Missoula	Jun-01	Jun-03
063	0036	42603	Oxides Of Nitrogen	DUCHARME AND MAIN STREET	Missoula	Jun-01	Jun-03
063	0701	62101	Outdoor Temperature	TV MOUNTAIN, MAPS MET SITE	Missoula	Jan-78	Dec-79
063	0702	61101	Wind Speed	OLOFSON FARM,MAPS MET SITE	Missoula	Jan-78	Dec-80
063	0702	61102	Wind Direction	OLOFSON FARM,MAPS MET SITE	Missoula	Jan-78	Dec-80
063	0703	61101	Wind Speed	STEIGLER FARM, MAPS MET SITE	Missoula	Jan-78	Dec-80
063	0703	61102	Wind Direction	STEIGLER FARM, MAPS MET SITE	Missoula	Jan-78	Dec-80
063	0704	61101	Wind Speed	UNIVERSITY OF MONTANA,MAPS MET SITE	Missoula	Jan-78	Dec-80
063	0704	61102	Wind Direction	UNIVERSITY OF MONTANA,MAPS MET SITE	Missoula	Jan-78	Dec-80
065	0004	42401	Sulfur Dioxide	0.5 MILE E. OF HWY 87 & 0.25 N. OF OLD DIVIDE	Musselshell	Jan-02	NULL
065	0004	42601	Nitric Oxide	0.5 MILE E. OF HWY 87 & 0.25 N. OF OLD DIVIDE	Musselshell	Jan-02	NULL
065	0004	42602	Nitrogen Dioxide	0.5 MILE E. OF HWY 87 & 0.25 N. OF OLD DIVIDE	Musselshell	Jan-02	NULL
065	0004	42603	Oxides Of Nitrogen	0.5 MILE E. OF HWY 87 & 0.25 N. OF OLD DIVIDE	Musselshell	Jan-02	NULL
067	0001	81102	Pm10 Total 0-10um Stp	TVX MINERAL HILL MINE #1,BOX 92,GARDINER	Park	May-88	Dec-97

067	0001	85101	Pm10 - Local Conditions	TVX MINERAL HILL MINE #1,BOX 92,GARDINER	Park	Jan-98	Aug-01
067	0001	82103	Arsenic (Pm10) Stp	TVX MINERAL HILL MINE #1,BOX 92,GARDINER	Park	Jan-89	Mar-92
067	0001	82128	Lead (Pm10) Stp	TVX MINERAL HILL MINE #1,BOX 92,GARDINER	Park	Jan-89	Dec-91
067	0002	11101	Suspended Particulate (Tsp)	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR	Park	Jan-88	Dec-91
067	0002	12103	Arsenic (Tsp)	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR	Park	Jan-89	Dec-91
067	0002	12128	Lead (Tsp)	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR	Park	Jan-89	Dec-91
067	0002	61102	Wind Direction	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR	Park	Apr-88	May-91
067	0002	81102	Pm10 Total 0-10um Stp	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR	Park	May-88	Apr-97
067	0002	82128	Lead (Pm10) Stp	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR	Park	Jan-89	Dec-91
067	0002	82103	Arsenic (Pm10) Stp	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR	Park	Jan-89	Apr-97
067	0002	62101	Outdoor Temperature	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR	Park	Apr-88	Feb-91
067	0002	61101	Wind Speed	MIN HILL-HOMESTEAD #2,OLD TAILINGS,GRDNR	Park	Apr-88	May-91
067	0003	81102	Pm10 Total 0-10um Stp	MIN HILL-HOMESTEAD #3 NORTH,JARDINE	Park	May-88	Apr-97
067	0003	82103	Arsenic (Pm10) Stp	MIN HILL-HOMESTEAD #3 NORTH,JARDINE	Park	Jan-89	Apr-97
067	0003	82128	Lead (Pm10) Stp	MIN HILL-HOMESTEAD #3 NORTH,JARDINE	Park	Jan-89	Dec-91
067	0005	61101	Wind Speed	NORANDA INC-NEW WORLD-FISHER CR #1	Park	Sep-89	Aug-91
067	0005	81102	Pm10 Total 0-10um Stp	NORANDA INC-NEW WORLD-FISHER CR #1	Park	Sep-89	Jul-91
067	0005	82167	Zinc (Pm10) Stp	NORANDA INC-NEW WORLD-FISHER CR #1	Park	Sep-89	Jul-91

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
067 0005	82128 Lead (Pm10) Stp	NORANDA INC-NEW WORLD-FISHER CR #1	Park	Sep-89	Jul-91
067 0005	82112 Chromium (Pm10) Stp	NORANDA INC-NEW WORLD-FISHER CR #1	Park	Sep-89	Jul-91
067 0005	82110 Cadmium (Pm10) Stp	NORANDA INC-NEW WORLD-FISHER CR #1	Park	Sep-89	Jul-91
067 0005	82103 Arsenic (Pm10) Stp	NORANDA INC-NEW WORLD-FISHER CR #1	Park	Sep-89	Jul-91
067 0005	62101 Outdoor Temperature	NORANDA INC-NEW WORLD-FISHER CR #1	Park	Jun-89	Aug-91
067 0005	61102 Wind Direction	NORANDA INC-NEW WORLD-FISHER CR #1	Park	Sep-89	Aug-91
067 0005	61106 Std Dev Hz Wind Direction	NORANDA INC-NEW WORLD-FISHER CR #1	Park	Sep-89	Aug-91
067 0006	61101 Wind Speed	NORANDA INC-NEW WORLD-MCLAREN MINE #2	Park	Sep-89	Aug-91
067 0006	61106 Std Dev Hz Wind Direction	NORANDA INC-NEW WORLD-MCLAREN MINE #2	Park	Sep-89	Aug-91
067 0006	62101 Outdoor Temperature	NORANDA INC-NEW WORLD-MCLAREN MINE #2	Park	Sep-89	Aug-91
067 0006	61102 Wind Direction	NORANDA INC-NEW WORLD-MCLAREN MINE #2	Park	Sep-89	Aug-91
067 0006	81102 Pm10 Total 0-10um Stp	NORANDA INC-NEW WORLD-MCLAREN MINE #2	Park	Sep-89	Oct-90
067 0006	82110 Cadmium (Pm10) Stp	NORANDA INC-NEW WORLD-MCLAREN MINE #2	Park	Sep-89	Oct-90
067 0006	82128 Lead (Pm10) Stp	NORANDA INC-NEW WORLD-MCLAREN MINE #2	Park	Sep-89	Oct-90
067 0006	82167 Zinc (Pm10) Stp	NORANDA INC-NEW WORLD-MCLAREN MINE #2	Park	Sep-89	Oct-90
067 0006	82112 Chromium (Pm10) Stp	NORANDA INC-NEW WORLD-MCLAREN MINE #2	Park	Sep-89	Oct-90

067	0006	82103	Arsenic (Pm10) Stp	NORANDA INC-NEW WORLD-MCLAREN MINE #2	Park	Sep-89	Oct-90
067	0007	81102	Pm10 Total 0-10um Stp	NEW WORLD SITE #3, COOKE CITY	Park	Jun-90	Dec-91
067	0007	82103	Arsenic (Pm10) Stp	NEW WORLD SITE #3, COOKE CITY	Park	Jun-90	Dec-91
067	0007	82110	Cadmium (Pm10) Stp	NEW WORLD SITE #3, COOKE CITY	Park	Jun-90	Dec-91
067	0007	82128	Lead (Pm10) Stp	NEW WORLD SITE #3, COOKE CITY	Park	Jun-90	Dec-91
067	0007	82167	Zinc (Pm10) Stp	NEW WORLD SITE #3, COOKE CITY	Park	Jun-90	Dec-91
067	0007	82112	Chromium (Pm10) Stp	NEW WORLD SITE #3, COOKE CITY	Park	Jun-90	Dec-91
067	0008	81102	Pm10 Total 0-10um Stp	BRAND S LUMBER-SITE 6-CITY PK,LIVINGSTON	Park	May-90	Dec-91
067	0009	81102	Pm10 Total 0-10um Stp	MINERAL HILL-CREEK #4, JARDINE	Park	Nov-90	Sep-93
067	0009	82128	Lead (Pm10) Stp	MINERAL HILL-CREEK #4, JARDINE	Park	Nov-90	Dec-91
067	0009	82103	Arsenic (Pm10) Stp	MINERAL HILL-CREEK #4, JARDINE	Park	Nov-90	Sep-93
067	0010	81102	Pm10 Total 0-10um Stp	MINERAL HILL-OFFICE #5, JARDINE	Park	Nov-90	Sep-93
067	0010	82128	Lead (Pm10) Stp	MINERAL HILL-OFFICE #5, JARDINE	Park	Nov-90	Dec-91
067	0010	82103	Arsenic (Pm10) Stp	MINERAL HILL-OFFICE #5, JARDINE	Park	Nov-90	Sep-93
067	0011	61101	Wind Speed	MINERAL HILL-MET STATION, JARDINE	Park	May-91	Sep-01
067	0011	61102	Wind Direction	MINERAL HILL-MET STATION, JARDINE	Park	May-91	Sep-01
067	0011	62101	Outdoor Temperature	MINERAL HILL-MET STATION, JARDINE	Park	Aug-91	Sep-01
067	0011	61106	Std Dev Hz Wind Direction	MINERAL HILL-MET STATION, JARDINE	Park	May-91	Sep-01

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
067	0013	21101	Total Dustfall (Sp)	BRAND S CORP, SURROUNDING #2 DUSTFALL	Park	Jun-90	Dec-95
067	0013	25101	Dustfall Combustible (Sp)	BRAND S CORP, SURROUNDING #2 DUSTFALL	Park	Jun-90	Dec-95
067	0014	21101	Total Dustfall (Sp)	BRAND S CORP, SILO BURNER #3	Park	Jun-90	Dec-95
067	0014	25101	Dustfall Combustible (Sp)	BRAND S CORP, SILO BURNER #3	Park	Jun-90	Dec-95
067	0015	21101	Total Dustfall (Sp)	BRAND S CORP, SILO BURNER #4	Park	Jun-90	Dec-95
067	0015	25101	Dustfall Combustible (Sp)	BRAND S CORP, SILO BURNER #4	Park	Jun-90	Dec-95
067	0016	21101	Total Dustfall (Sp)	BRAND S CORP, SILO BURNER #5	Park	Jun-90	Dec-95
067	0016	25101	Dustfall Combustible (Sp)	BRAND S CORP, SILO BURNER #5	Park	Jun-90	Dec-95
067	0017	21101	Total Dustfall (Sp)	BRAND S CORP, SILO BURNER #6	Park	Jun-90	Dec-95
067	0017	25101	Dustfall Combustible (Sp)	BRAND S CORP, SILO BURNER #6	Park	Jun-90	Dec-95
067	0018	21101	Total Dustfall (Sp)	BRAND S CORP, SILO BURNER #7	Park	Jun-90	Dec-95
067	0018	25101	Dustfall Combustible (Sp)	BRAND S CORP, SILO BURNER #7	Park	Jun-90	Dec-95
071	0001	11101	Suspended Particulate (Tsp)	MULTU BLM	Phillips	Jan-81	Dec-85
071	0002	81102	Pm10 Total 0-10um Stp	PEGASUS, ZORTMAN MINING, LANDUSKY #2	Phillips	Apr-90	Dec-97
071	0002	82103	Arsenic (Pm10) Stp	PEGASUS, ZORTMAN MINING, LANDUSKY #2	Phillips	Apr-90	Mar-93
071	0002	82110	Cadmium (Pm10) Stp	PEGASUS, ZORTMAN MINING, LANDUSKY #2	Phillips	Apr-90	Dec-91

071	0002	82112	Chromium (Pm10) Stp	PEGASUS, ZORTMAN MINING, LANDUSKY #2	Phillips	Apr-90	Mar-93
071	0002	82128	Lead (Pm10) Stp	PEGASUS, ZORTMAN MINING, LANDUSKY #2	Phillips	Apr-90	Mar-93
071	0002	82167	Zinc (Pm10) Stp	PEGASUS, ZORTMAN MINING, LANDUSKY #2	Phillips	Apr-90	Dec-91
071	0002	85101	Pm10 - Local Conditions	PEGASUS, ZORTMAN MINING, LANDUSKY #2	Phillips	Jan-98	NULL
071	0003	61101	Wind Speed	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3	Phillips	Apr-90	Mar-92
071	0003	61102	Wind Direction	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3	Phillips	Apr-90	Mar-92
071	0003	61106	Std Dev Hz Wind Direction	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3	Phillips	Apr-90	Mar-92
071	0003	62101	Outdoor Temperature	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3	Phillips	Apr-90	Mar-92
071	0003	81102	Pm10 Total 0-10um Stp	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3	Phillips	May-90	Mar-93
071	0003	82103	Arsenic (Pm10) Stp	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3	Phillips	May-90	Dec-91
071	0003	82110	Cadmium (Pm10) Stp	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3	Phillips	May-90	Dec-91
071	0003	82112	Chromium (Pm10) Stp	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3	Phillips	May-90	Mar-93
071	0003	82128	Lead (Pm10) Stp	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3	Phillips	May-90	Mar-93
071	0003	82167	Zinc (Pm10) Stp	PEGASUS, ZORTMAN MINING,SULLIVAN PARK 3	Phillips	May-90	Dec-91
071	0004	61101	Wind Speed	PEGASUS, ZORTMAN MINING,BONEYARD #4	Phillips	Mar-90	Mar-92
071	0004	61102	Wind Direction	PEGASUS, ZORTMAN MINING,BONEYARD #4	Phillips	Mar-90	Mar-92
071	0004	61106	Std Dev Hz Wind Direction	PEGASUS, ZORTMAN MINING,BONEYARD #4	Phillips	Mar-90	Mar-92
071	0004	62101	Outdoor Temperature	PEGASUS, ZORTMAN MINING,BONEYARD #4	Phillips	Mar-90	Mar-92

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
071	0005	81102	Pm10 Total 0-10um Stp	ZORTMAN MINE #5, DOWNEY RESIDENCE	Phillips	May-90	Dec-97
071	0005	82103	Arsenic (Pm10) Stp	ZORTMAN MINE #5, DOWNEY RESIDENCE	Phillips	May-90	NULL
071	0005	82110	Cadmium (Pm10) Stp	ZORTMAN MINE #5, DOWNEY RESIDENCE	Phillips	May-90	NULL
071	0005	82112	Chromium (Pm10) Stp	ZORTMAN MINE #5, DOWNEY RESIDENCE	Phillips	May-90	Mar-93
071	0005	82128	Lead (Pm10) Stp	ZORTMAN MINE #5, DOWNEY RESIDENCE	Phillips	May-90	Mar-93
071	0005	82167	Zinc (Pm10) Stp	ZORTMAN MINE #5, DOWNEY RESIDENCE	Phillips	May-90	NULL
071	0005	85101	Pm10 - Local Conditions	ZORTMAN MINE #5, DOWNEY RESIDENCE	Phillips	Jan-98	NULL
071	0006	81102	Pm10 Total 0-10um Stp	ZORTMAN MINING - SCHOOLHOUSE #6	Phillips	Jun-90	Dec-93
071	0006	82103	Arsenic (Pm10) Stp	ZORTMAN MINING - SCHOOLHOUSE #6	Phillips	Jun-90	Dec-93
071	0006	82110	Cadmium (Pm10) Stp	ZORTMAN MINING - SCHOOLHOUSE #6	Phillips	Jun-90	Dec-93
071	0006	82112	Chromium (Pm10) Stp	ZORTMAN MINING - SCHOOLHOUSE #6	Phillips	Jun-90	Mar-93
071	0006	82128	Lead (Pm10) Stp	ZORTMAN MINING - SCHOOLHOUSE #6	Phillips	Jun-90	Mar-93
071	0006	82167	Zinc (Pm10) Stp	ZORTMAN MINING - SCHOOLHOUSE #6	Phillips	Jun-90	Dec-93
071	0007	81102	Pm10 Total 0-10um Stp	ZORTMAN MINING-FRANCIS KOLCZAK #1	Phillips	Apr-90	May-97
071	0007	82103	Arsenic (Pm10) Stp	ZORTMAN MINING-FRANCIS KOLCZAK #1	Phillips	Apr-90	Mar-93
071	0007	82110	Cadmium (Pm10) Stp	ZORTMAN MINING-FRANCIS KOLCZAK #1	Phillips	Apr-90	Jan-92

071	0007	82112	Chromium (Pm10) Stp	ZORTMAN MINING-FRANCIS KOLCZAK #1	Phillips	Apr-90	Mar-93
071	0007	82128	Lead (Pm10) Stp	ZORTMAN MINING-FRANCIS KOLCZAK #1	Phillips	Apr-90	Mar-93
071	0007	82167	Zinc (Pm10) Stp	ZORTMAN MINING-FRANCIS KOLCZAK #1	Phillips	Apr-90	Jan-92
071	0008	61101	Wind Speed	ZORTMAN-SQUARE BUTTE #7, ZORTMAN	Phillips	Sep-90	Dec-94
071	0008	61102	Wind Direction	ZORTMAN-SQUARE BUTTE #7, ZORTMAN	Phillips	Sep-90	Dec-94
071	0008	61106	Std Dev Hz Wind Direction	ZORTMAN-SQUARE BUTTE #7, ZORTMAN	Phillips	Sep-90	Dec-94
071	0008	81102	Pm10 Total 0-10um Stp	ZORTMAN-SQUARE BUTTE #7, ZORTMAN	Phillips	Sep-90	Dec-94
071	0008	82103	Arsenic (Pm10) Stp	ZORTMAN-SQUARE BUTTE #7, ZORTMAN	Phillips	Oct-90	Dec-93
071	0008	82110	Cadmium (Pm10) Stp	ZORTMAN-SQUARE BUTTE #7, ZORTMAN	Phillips	Oct-90	Dec-93
071	0008	82112	Chromium (Pm10) Stp	ZORTMAN-SQUARE BUTTE #7, ZORTMAN	Phillips	Oct-90	Mar-93
071	0008	82128	Lead (Pm10) Stp	ZORTMAN-SQUARE BUTTE #7, ZORTMAN	Phillips	Oct-90	Mar-93
071	0008	82167	Zinc (Pm10) Stp	ZORTMAN-SQUARE BUTTE #7, ZORTMAN	Phillips	Oct-90	Dec-91
071	0009	81102	Pm10 Total 0-10um Stp	ZORTMAN-UPPER ALDER GULCH	Phillips	Apr-93	May-97
075	0006	11101	Suspended Particulate (Tsp)	LAFLAMME,718 S LINCOLN	Powder River	Jan-72	Dec-73
075	0006	11103	Benzene Soluble Organics(Tsp)	LAFLAMME,718 S LINCOLN	Powder River	Jan-72	Dec-73
075	0006	12110	Cadmium (Tsp)	LAFLAMME,718 S LINCOLN	Powder River	Jan-72	Dec-73
075	0006	12128	Lead (Tsp)	LAFLAMME,718 S LINCOLN	Powder River	Jan-72	Dec-73
075	0006	12167	Zinc (Tsp)	LAFLAMME,718 S LINCOLN	Powder River	Jan-72	Dec-73

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
075	0008	11101	Suspended Particulate (Tsp)	NEAR FORT HOWES RANGER STATION	Powder River	Jan-74	Dec-78
075	0009	11101	Suspended Particulate (Tsp)	RANDALL RANCH, 4 MI SW BROADUS	Powder River	Jan-74	Dec-78
075	0009	61101	Wind Speed	RANDALL RANCH, 4 MI SW BROADUS	Powder River	Jan-76	Dec-76
075	0009	61102	Wind Direction	RANDALL RANCH, 4 MI SW BROADUS	Powder River	Jan-76	Dec-76
077	0001	11101	Suspended Particulate (Tsp)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	Powell	Jan-71	Dec-86
077	0001	11103	Benzene Soluble Organics(Tsp)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	Powell	Jan-71	Dec-86
077	0001	12103	Arsenic (Tsp)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	Powell	Jan-71	Dec-86
077	0001	12110	Cadmium (Tsp)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	Powell	Jan-71	Dec-86
077	0001	12128	Lead (Tsp)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	Powell	Jan-71	Dec-86
077	0001	12167	Zinc (Tsp)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	Powell	Jan-71	Dec-86
077	0001	12403	Sulfate (Tsp)	POWELL CO COURTHOUSE,COTTONWOOD&MO AVE	Powell	Jan-71	Dec-86
077	0002	11101	Suspended Particulate (Tsp)	DEER LODGE CITY HALL	Powell	Jan-71	Dec-71
077	0002	12403	Sulfate (Tsp)	DEER LODGE CITY HALL	Powell	Jan-71	Dec-71
077	0002	12209	Fluoride (Paper Samplers)	DEER LODGE CITY HALL	Powell	Jan-71	Dec-71
077	0002	11103	Benzene Soluble Organics(Tsp)	DEER LODGE CITY HALL	Powell	Jan-71	Dec-71
077	0002	12128	Lead (Tsp)	DEER LODGE CITY HALL	Powell	Jan-71	Dec-71

077	0002	12167	Zinc (Tsp)	DEER LODGE CITY HALL	Powell	Jan-71	Dec-71
077	0002	12202	Fluoride(Tsp)	DEER LODGE CITY HALL	Powell	Jan-71	Dec-71
077	0002	12103	Arsenic (Tsp)	DEER LODGE CITY HALL	Powell	Jan-71	Dec-71
077	0002	12110	Cadmium (Tsp)	DEER LODGE CITY HALL	Powell	Jan-71	Dec-71
077	0005	11101	Suspended Particulate (Tsp)	LAHMAN RESIDENCE SOUTH OF GARRISON	Powell	Jan-71	Dec-75
077	0018	11101	Suspended Particulate (Tsp)	GERDTS RESIDENCE	Powell	Jan-75	Dec-75
077	0024	11101	Suspended Particulate (Tsp)	TERRY SMITH RANCH, OVANDO	Powell	Jan-80	Dec-87
077	0024	12403	Sulfate (Tsp)	TERRY SMITH RANCH, OVANDO	Powell	Jan-82	Dec-82
077	0024	42410	Sulfation Rate	TERRY SMITH RANCH, OVANDO	Powell	Jan-80	Dec-81
077	0024	81102	Pm10 Total 0-10um Stp	TERRY SMITH RANCH, OVANDO	Powell	Jan-85	Dec-87
077	0024	81102	Pm10 Total 0-10um Stp	TERRY SMITH RANCH, OVANDO	Powell	Apr-87	Dec-87
081	0001	11101	Suspended Particulate (Tsp)	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jan-83	Dec-87
081	0001	68101	Sample Flow Rate- Cv	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jan-00	NULL
081	0001	68102	Sample Volume	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jan-00	NULL
081	0001	68103	Ambient Min Temperature	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jan-00	NULL
081	0001	68104	Ambient Max Temperature	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jan-00	NULL
081	0001	68105	Ambient Avg Temperature	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jan-00	NULL
081	0001	68106	Sample Min Baro Pressure	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jan-00	NULL

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
081	0001	68107	Sample Max Baro Pressure	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jan-00	NULL
081	0001	68108	Sample Avg Baro Pressure	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jan-00	NULL
081	0001	68109	Elapsed Sample Time	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jan-00	NULL
081	0001	81102	Pm10 Total 0-10um Stp	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jun-86	Apr-87
081	0001	81102	Pm10 Total 0-10um Stp	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Apr-87	NULL
081	0001	85101	Pm10 - Local Conditions	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Oct-99	NULL
081	0001	88101	Pm2.5 - Local Conditions	RAVALLI COUNTY COURTHOUSE, 205 BEDFORD	Ravalli	Jan-00	NULL
081	0002	81102	Pm10 Total 0-10um Stp	MT GOLD REALTY BUILDING,111 S HWY 93	Ravalli	Jul-94	Oct-99
081	0002	85101	Pm10 - Local Conditions	MT GOLD REALTY BUILDING,111 S HWY 93	Ravalli	Jan-98	Oct-99
081	0003	81102	Pm10 Total 0-10um Stp	STEVENSVILLE RANGER STATION,88 MAIN ST	Ravalli	Jul-94	Nov-00
081	0003	81102	Pm10 Total 0-10um Stp	STEVENSVILLE RANGER STATION,88 MAIN ST	Ravalli	Jul-94	Jun-01
081	0003	85101	Pm10 - Local Conditions	STEVENSVILLE RANGER STATION,88 MAIN ST	Ravalli	Jan-98	Nov-00
081	0004	81102	Pm10 Total 0-10um Stp	WFORK RANGER STATION;6735 WFORK RD;DARBY	Ravalli	Jul-94	Jul-00
081	0004	85101	Pm10 - Local Conditions	WFORK RANGER STATION;6735 WFORK RD;DARBY	Ravalli	Jan-98	Jul-00
081	0006	81102	Pm10 Total 0-10um Stp	2 MILES E OF HWY 93, STEVENSVILLE	Ravalli	Jun-01	Jun-04
083	0005	11101	Suspended Particulate (Tsp)	SIDNEY BUXBAUM	Richland	Jan-73	Dec-73

083	0010	11101	Suspended Particulate (Tsp)	SIDNEY DOWNTOWN,115 2ND ST SE,SIDNEY	Richland	Jan-83	Dec-87
083	0010	12306	Nitrate (Tsp)	SIDNEY DOWNTOWN,115 2ND ST SE,SIDNEY	Richland	Jan-84	Dec-84
083	0010	12403	Sulfate (Tsp)	SIDNEY DOWNTOWN,115 2ND ST SE,SIDNEY	Richland	Jan-83	Dec-85
083	0011	42410	Sulfation Rate	#1 PETERSON-MORLOCK,2.7 MI NW SIDNEY	Richland	Jan-82	Dec-86
083	0011	42410	Sulfation Rate	#1 PETERSON-MORLOCK,2.7 MI NW SIDNEY	Richland	Jan-85	Dec-85
083	0012	42410	Sulfation Rate	#2 PUBLIC WELFARE OFFICE,5TH ST &3RD AVE	Richland	Jan-82	Dec-86
083	0012	42410	Sulfation Rate	#2 PUBLIC WELFARE OFFICE,5TH ST &3RD AVE	Richland	Jan-85	Dec-85
083	0013	42410	Sulfation Rate	#3 SHELL OIL,6.1 MI E JCT HWY 16 & 23	Richland	Jan-82	Dec-86
083	0014	42410	Sulfation Rate	#4 YELLOWSTONE RIVER BRIDGE	Richland	Jan-82	Dec-84
083	0015	42410	Sulfation Rate	#5 FAIRVIEW NORTH,8.7 MI W FAIRVIEW	Richland	Jan-82	Dec-84
083	0016	42410	Sulfation Rate	#6 S SIDNEY PUMPER,.3 M W JCT HWY 16&200	Richland	Jan-82	Dec-84
083	0017	42410	Sulfation Rate	#7 S SIDNEY FLARE,.9 M W JCT HWY 16&200	Richland	Jan-82	Dec-84
083	0018	42410	Sulfation Rate	#8 N SIDNEY,2.1 M N SIDNEY ON LINCOLN ST	Richland	Jan-82	Dec-84
083	0019	42410	Sulfation Rate	#9 RICHLAND PARK ROAD,3.5 M NE SIDNEY	Richland	Jan-82	Dec-84
083	0020	42410	Sulfation Rate	COOKE RESIDENCE SOUTH OF SIDNEY MT	Richland	Jan-84	Dec-84
083	0028	42410	Sulfation Rate	LUDINGTON SIDNEY MT	Richland	Jan-85	Dec-86
083	0029	42410	Sulfation Rate	RIVER ROAD #1 SIDNEY MT	Richland	Jan-85	Dec-86
083	0030	42410	Sulfation Rate	RIVER ROAD #2 SIDNEY MT	Richland	Jan-85	Dec-86

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
083	0031	42410	Sulfation Rate	GOSSETT SIDNEY MT	Richland	Jan-85	Dec-86
085	0001	11101	Suspended Particulate (Tsp)	WITTE WELL	Roosevelt	Jan-74	Dec-76
085	0001	12306	Nitrate (Tsp)	WITTE WELL	Roosevelt	Jan-76	Dec-76
085	0001	12403	Sulfate (Tsp)	WITTE WELL	Roosevelt	Jan-76	Dec-76
085	0001	61101	Wind Speed	WITTE WELL	Roosevelt	Jan-76	Dec-76
085	0001	61102	Wind Direction	WITTE WELL	Roosevelt	Jan-76	Dec-76
085	0004	42410	Sulfation Rate	BOX 506 POPLAR MT 59255	Roosevelt	Jan-83	Dec-90
085	0005	42410	Sulfation Rate	BOX 506 POPLAR MT 59255	Roosevelt	Jan-83	Dec-84
085	0006	42410	Sulfation Rate	BOX 506 POPLAR MT 59255	Roosevelt	Jan-83	Dec-85
085	0007	42410	Sulfation Rate	KENCO OIL REFINERY 7 MI EAST OF WOLF PT	Roosevelt	Jan-84	Dec-85
085	0010	42410	Sulfation Rate	LONG CREEK OIL FIELD	Roosevelt	Jan-84	Dec-90
087	0003	11101	Suspended Particulate (Tsp)	FISHER BUTTE NEAR LAME DEER	Rosebud	Jan-74	Dec-80
087	0003	42401	Sulfur Dioxide	FISHER BUTTE NEAR LAME DEER	Rosebud	Jan-76	Dec-77
087	0003	42401	Sulfur Dioxide	FISHER BUTTE NEAR LAME DEER	Rosebud	Jan-75	Dec-75
087	0003	42602	Nitrogen Dioxide	FISHER BUTTE NEAR LAME DEER	Rosebud	Jan-76	Dec-78
087	0003	42602	Nitrogen Dioxide	FISHER BUTTE NEAR LAME DEER	Rosebud	Jan-75	Dec-75

087	0003	61101	Wind Speed	FISHER BUTTE NEAR LAME DEER	Rosebud	Jan-76	Dec-76
087	0003	61102	Wind Direction	FISHER BUTTE NEAR LAME DEER	Rosebud	Jan-76	Dec-76
087	0009	11101	Suspended Particulate (Tsp)	KLUVER RANCH RURAL RT 1 (FORSYTH)	Rosebud	Jan-72	Dec-73
087	0009	11103	Benzene Soluble Organics(Tsp)	KLUVER RANCH RURAL RT 1 (FORSYTH)	Rosebud	Jan-72	Dec-73
087	0009	12103	Arsenic (Tsp)	KLUVER RANCH RURAL RT 1 (FORSYTH)	Rosebud	Jan-72	Dec-73
087	0009	12110	Cadmium (Tsp)	KLUVER RANCH RURAL RT 1 (FORSYTH)	Rosebud	Jan-72	Dec-73
087	0009	12128	Lead (Tsp)	KLUVER RANCH RURAL RT 1 (FORSYTH)	Rosebud	Jan-72	Dec-73
087	0009	12167	Zinc (Tsp)	KLUVER RANCH RURAL RT 1 (FORSYTH)	Rosebud	Jan-72	Dec-73
087	0021	11101	Suspended Particulate (Tsp)	IRA GRESONS,137 RIVER ST, FORSYTH	Rosebud	Jan-72	Dec-72
087	0021	11103	Benzene Soluble Organics(Tsp)	IRA GRESONS,137 RIVER ST, FORSYTH	Rosebud	Jan-72	Dec-72
087	0021	12110	Cadmium (Tsp)	IRA GRESONS,137 RIVER ST, FORSYTH	Rosebud	Jan-72	Dec-72
087	0021	12128	Lead (Tsp)	IRA GRESONS,137 RIVER ST, FORSYTH	Rosebud	Jan-72	Dec-72
087	0021	12167	Zinc (Tsp)	IRA GRESONS,137 RIVER ST, FORSYTH	Rosebud	Jan-72	Dec-72
087	0024	11101	Suspended Particulate (Tsp)	BAILEY RANCH	Rosebud	Jan-72	Dec-73
087	0024	12110	Cadmium (Tsp)	BAILEY RANCH	Rosebud	Jan-72	Dec-73
087	0024	12128	Lead (Tsp)	BAILEY RANCH	Rosebud	Jan-72	Dec-73
087	0024	12167	Zinc (Tsp)	BAILEY RANCH	Rosebud	Jan-72	Dec-73
087	0025	11101	Suspended Particulate (Tsp)	FERRIS RANCH	Rosebud	Jan-73	Dec-73

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
087	0026	11101	Suspended Particulate (Tsp)	ASHLAND RANGER DISTRICT (ASHLAND)	Rosebud	Jan-70	Dec-78
087	0027	11101	Suspended Particulate (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Jan-73	Dec-80
087	0027	11203	Light Scatter	BN SITE, COLSTRIP MT	Rosebud	Jan-76	Dec-76
087	0027	12101	Aluminum (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Oct-78	Dec-78
087	0027	12103	Arsenic (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Jan-73	Dec-78
087	0027	12110	Cadmium (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Oct-78	Dec-78
087	0027	12112	Chromium (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Jan-78	Dec-78
087	0027	12114	Copper (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Oct-78	Dec-78
087	0027	12126	Iron (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Oct-78	Dec-78
087	0027	12128	Lead (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Jan-78	Dec-78
087	0027	12132	Manganese (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Oct-78	Dec-78
087	0027	12136	Nickel (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Oct-78	Dec-78
087	0027	12167	Zinc (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Oct-78	Dec-78
087	0027	12306	Nitrate (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Jan-77	Dec-77
087	0027	12306	Nitrate (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Jan-76	Dec-78
087	0027	12403	Sulfate (Tsp)	BN SITE, COLSTRIP MT	Rosebud	Jan-76	Dec-78

087	0027	42401	Sulfur Dioxide	BN SITE, COLSTRIP MT	Rosebud	Jan-75	Dec-77
087	0027	42401	Sulfur Dioxide	BN SITE, COLSTRIP MT	Rosebud	Jan-75	Dec-76
087	0027	42401	Sulfur Dioxide	BN SITE, COLSTRIP MT	Rosebud	Jan-75	Dec-75
087	0027	42401	Sulfur Dioxide	BN SITE, COLSTRIP MT	Rosebud	Jan-73	Dec-75
087	0027	42601	Nitric Oxide	BN SITE, COLSTRIP MT	Rosebud	Jan-76	Dec-77
087	0027	42602	Nitrogen Dioxide	BN SITE, COLSTRIP MT	Rosebud	Jan-75	Dec-77
087	0027	42602	Nitrogen Dioxide	BN SITE, COLSTRIP MT	Rosebud	Jan-75	Dec-76
087	0027	42602	Nitrogen Dioxide	BN SITE, COLSTRIP MT	Rosebud	Jan-75	Dec-75
087	0027	42602	Nitrogen Dioxide	BN SITE, COLSTRIP MT	Rosebud	Jan-74	Dec-75
087	0027	42603	Oxides Of Nitrogen	BN SITE, COLSTRIP MT	Rosebud	Jan-76	Dec-77
087	0027	43101	Total Hydrocarbons	BN SITE, COLSTRIP MT	Rosebud	Jan-75	Dec-77
087	0027	43102	Total Nmoc	BN SITE, COLSTRIP MT	Rosebud	Jan-75	Dec-77
087	0027	43201	Methane	BN SITE, COLSTRIP MT	Rosebud	Jan-75	Dec-77
087	0027	44201	Ozone	BN SITE, COLSTRIP MT	Rosebud	Jan-75	Dec-77
087	0027	44201	Ozone	BN SITE, COLSTRIP MT	Rosebud	Jan-75	Dec-75
087	0027	61101	Wind Speed	BN SITE, COLSTRIP MT	Rosebud	Jan-76	Dec-78
087	0027	61102	Wind Direction	BN SITE, COLSTRIP MT	Rosebud	Jan-76	Dec-78
087	0028	11101	Suspended Particulate (Tsp)	MCRAE SITE	Rosebud	Jan-73	Dec-79

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
087	0028	11203	Light Scatter	MCRAE SITE	Rosebud	Jan-76	Dec-76
087	0028	12101	Aluminum (Tsp)	MCRAE SITE	Rosebud	Jan-78	Dec-78
087	0028	12103	Arsenic (Tsp)	MCRAE SITE	Rosebud	Jan-73	Dec-78
087	0028	42401	Sulfur Dioxide	MCRAE SITE	Rosebud	Jan-75	Dec-75
087	0028	42401	Sulfur Dioxide	MCRAE SITE	Rosebud	Jan-73	Dec-75
087	0028	61102	Wind Direction	MCRAE SITE	Rosebud	Jan-76	Dec-76
087	0028	61101	Wind Speed	MCRAE SITE	Rosebud	Jan-76	Dec-76
087	0028	44201	Ozone	MCRAE SITE	Rosebud	Jan-73	Dec-75
087	0028	44201	Ozone	MCRAE SITE	Rosebud	Jan-75	Dec-75
087	0028	42603	Oxides Of Nitrogen	MCRAE SITE	Rosebud	Jan-73	Dec-75
087	0028	42602	Nitrogen Dioxide	MCRAE SITE	Rosebud	Jan-74	Dec-75
087	0028	42602	Nitrogen Dioxide	MCRAE SITE	Rosebud	Jan-73	Dec-75
087	0028	42602	Nitrogen Dioxide	MCRAE SITE	Rosebud	Jan-75	Dec-77
087	0028	42601	Nitric Oxide	MCRAE SITE	Rosebud	Jan-73	Dec-75
087	0028	42401	Sulfur Dioxide	MCRAE SITE	Rosebud	Jan-73	Dec-75
087	0028	42401	Sulfur Dioxide	MCRAE SITE	Rosebud	Jan-75	Dec-77

087	0028	12114	Copper (Tsp)	MCRAE SITE	Rosebud	Jan-78	Dec-78
087	0028	12126	Iron (Tsp)	MCRAE SITE	Rosebud	Jan-78	Dec-78
087	0028	12306	Nitrate (Tsp)	MCRAE SITE	Rosebud	Jan-78	Dec-78
087	0028	12403	Sulfate (Tsp)	MCRAE SITE	Rosebud	Jan-78	Dec-78
087	0028	42101	Carbon Monoxide	MCRAE SITE	Rosebud	Jan-75	Dec-75
087	0028	42101	Carbon Monoxide	MCRAE SITE	Rosebud	Jan-73	Dec-74
087	0614	61101	Wind Speed	MPC #14, MET TOWER, COLSTRIP	Rosebud	Nov-73	Jun-92
087	0614	61101	Wind Speed	MPC #14, MET TOWER, COLSTRIP	Rosebud	Nov-73	Jun-92
087	0614	61102	Wind Direction	MPC #14, MET TOWER, COLSTRIP	Rosebud	Nov-73	Jun-92
087	0614	61102	Wind Direction	MPC #14, MET TOWER, COLSTRIP	Rosebud	Nov-73	Jun-92
087	0614	61106	Std Dev Hz Wind Direction	MPC #14, MET TOWER, COLSTRIP	Rosebud	Aug-86	Jun-92
087	0614	61106	Std Dev Hz Wind Direction	MPC #14, MET TOWER, COLSTRIP	Rosebud	Aug-86	Jun-92
087	0614	62101	Outdoor Temperature	MPC #14, MET TOWER, COLSTRIP	Rosebud	Dec-73	Jun-92
087	0614	62103	Dew Point	MPC #14, MET TOWER, COLSTRIP	Rosebud	Feb-84	Jun-92
087	0614	62106	Temperature Difference	MPC #14, MET TOWER, COLSTRIP	Rosebud	Nov-83	Jun-92
087	0614	62106	Temperature Difference	MPC #14, MET TOWER, COLSTRIP	Rosebud	Nov-83	Jun-92
087	0700	11101	Suspended Particulate (Tsp)	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Jan-72	Dec-90
087	0700	11101	Suspended Particulate (Tsp)	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Jan-72	Dec-90

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
087	0700	12209	Fluoride (Paper Samplers)	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Dec-71	Dec-88
087	0700	21101	Total Dustfall (Sp)	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Dec-71	Jan-96
087	0700	42401	Sulfur Dioxide	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Apr-82	NULL
087	0700	42410	Sulfation Rate	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Dec-71	Dec-88
087	0700	42602	Nitrogen Dioxide	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Apr-82	NULL
087	0700	61101	Wind Speed	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Apr-82	Jun-92
087	0700	61102	Wind Direction	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Apr-82	Jun-92
087	0700	61106	Std Dev Hz Wind Direction	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Apr-82	Jun-92
087	0700	62101	Outdoor Temperature	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Apr-82	Jun-92
087	0700	81102	Pm10 Total 0-10um Stp	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Dec-89	Dec-97
087	0700	81102	Pm10 Total 0-10um Stp	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Dec-89	Dec-90
087	0700	85101	Pm10 - Local Conditions	MPC #3, CEDAR AVE HILL, COLSTRIP	Rosebud	Jan-98	NULL
087	0701	11101	Suspended Particulate (Tsp)	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Dec-72	Jun-92
087	0701	11101	Suspended Particulate (Tsp)	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Dec-72	Dec-88
087	0701	12209	Fluoride (Paper Samplers)	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Jan-73	Dec-88
087	0701	21101	Total Dustfall (Sp)	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Dec-72	Jan-96

087	0701	42401	Sulfur Dioxide	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Jun-81	NULL
087	0701	42410	Sulfation Rate	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Jan-73	Dec-88
087	0701	42602	Nitrogen Dioxide	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Jun-81	NULL
087	0701	61101	Wind Speed	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Jun-81	NULL
087	0701	61102	Wind Direction	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Jun-81	NULL
087	0701	61106	Std Dev Hz Wind Direction	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Jun-81	NULL
087	0701	62101	Outdoor Temperature	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Jun-81	NULL
087	0701	81102	Pm10 Total 0-10um Stp	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Jul-92	Dec-97
087	0701	85101	Pm10 - Local Conditions	MPC #1,HIWAY 39 INDUSTRIAL PARK,COLSTRIP	Rosebud	Jan-98	NULL
087	0702	11101	Suspended Particulate (Tsp)	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Dec-72	Jun-92
087	0702	11101	Suspended Particulate (Tsp)	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Dec-72	Dec-88
087	0702	12209	Fluoride (Paper Samplers)	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Jan-73	Dec-88
087	0702	21101	Total Dustfall (Sp)	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Dec-72	Dec-95
087	0702	62101	Outdoor Temperature	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Jun-81	NULL
087	0702	81102	Pm10 Total 0-10um Stp	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Jul-92	Jul-95
087	0702	61106	Std Dev Hz Wind Direction	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Jun-81	NULL
087	0702	61102	Wind Direction	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Jun-81	NULL
087	0702	42401	Sulfur Dioxide	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Jun-81	NULL

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
087	0702	42410	Sulfation Rate	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Jan-73	Dec-88
087	0702	42602	Nitrogen Dioxide	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Jun-81	NULL
087	0702	61101	Wind Speed	MPC #2, 5&6 POND WEST, COLSTRIP	Rosebud	Jun-81	NULL
087	0703	11101	Suspended Particulate (Tsp)	PO BOX 38 COLSTRIP MT	Rosebud	Jan-81	Dec-82
087	0703	12209	Fluoride (Paper Samplers)	PO BOX 38 COLSTRIP MT	Rosebud	Jan-81	Dec-82
087	0703	21101	Total Dustfall (Sp)	PO BOX 38 COLSTRIP MT	Rosebud	Jan-81	Dec-81
087	0703	42401	Sulfur Dioxide	PO BOX 38 COLSTRIP MT	Rosebud	Jan-82	Dec-82
087	0703	42410	Sulfation Rate	PO BOX 38 COLSTRIP MT	Rosebud	Jan-81	Dec-81
087	0703	42602	Nitrogen Dioxide	PO BOX 38 COLSTRIP MT	Rosebud	Jan-82	Dec-82
087	0704	11101	Suspended Particulate (Tsp)	MPC #4, HAWTHORNE HILL, COLSTRIP	Rosebud	Aug-77	Jun-92
087	0704	11101	Suspended Particulate (Tsp)	MPC #4, HAWTHORNE HILL, COLSTRIP	Rosebud	Aug-77	Dec-88
087	0704	12209	Fluoride (Paper Samplers)	MPC #4, HAWTHORNE HILL, COLSTRIP	Rosebud	Sep-83	Dec-88
087	0704	21101	Total Dustfall (Sp)	MPC #4, HAWTHORNE HILL, COLSTRIP	Rosebud	Dec-77	Jun-92
087	0704	42401	Sulfur Dioxide	MPC #4, HAWTHORNE HILL, COLSTRIP	Rosebud	Jan-77	Jun-92
087	0704	42410	Sulfation Rate	MPC #4, HAWTHORNE HILL, COLSTRIP	Rosebud	Jan-83	Dec-88
087	0704	42602	Nitrogen Dioxide	MPC #4, HAWTHORNE HILL, COLSTRIP	Rosebud	Jan-77	Jun-92

087	0704	61101	Wind Speed	MPC #4, HAWTHORNE HILL, COLSTRIP	Rosebud	Aug-81	Jun-92
087	0704	61102	Wind Direction	MPC #4, HAWTHORNE HILL, COLSTRIP	Rosebud	Aug-81	Jun-92
087	0704	61106	Std Dev Hz Wind Direction	MPC #4, HAWTHORNE HILL, COLSTRIP	Rosebud	Aug-81	Jun-92
087	0704	62101	Outdoor Temperature	MPC #4, HAWTHORNE HILL, COLSTRIP	Rosebud	Aug-81	Jun-92
087	0705	12209	Fluoride (Paper Samplers)	MPC #5, SNIDER RANCH, COLSTRIP	Rosebud	Apr-79	Dec-88
087	0705	21101	Total Dustfall (Sp)	MPC #5, SNIDER RANCH, COLSTRIP	Rosebud	Apr-79	Dec-81
087	0705	42410	Sulfation Rate	MPC #5, SNIDER RANCH, COLSTRIP	Rosebud	Apr-79	Dec-88
087	0706	12209	Fluoride (Paper Samplers)	MPC #6, NORTH FORK COW CREEK, COLSTRIP	Rosebud	Dec-72	Dec-88
087	0706	42410	Sulfation Rate	MPC #6, NORTH FORK COW CREEK, COLSTRIP	Rosebud	Dec-72	Dec-88
087	0707	12209	Fluoride (Paper Samplers)	MPC #7, AREA B SOUTH, COLSTRIP	Rosebud	Sep-72	Dec-88
087	0707	42410	Sulfation Rate	MPC #7, AREA B SOUTH, COLSTRIP	Rosebud	Sep-72	Dec-88
087	0708	12209	Fluoride (Paper Samplers)	MPC #8, AIRPORT SITE, COLSTRIP	Rosebud	Sep-72	Dec-88
087	0708	42410	Sulfation Rate	MPC #8, AIRPORT SITE, COLSTRIP	Rosebud	Sep-72	Dec-88
087	0709	12209	Fluoride (Paper Samplers)	MPC #9, AREA A NORTH, COLSTRIP	Rosebud	Sep-72	Dec-88
087	0709	42410	Sulfation Rate	MPC #9, AREA A NORTH, COLSTRIP	Rosebud	Sep-72	Dec-88
087	0710	12209	Fluoride (Paper Samplers)	MPC #10, GOBBLERS KNOB, COLSTRIP	Rosebud	Sep-72	Dec-88
087	0710	42410	Sulfation Rate	MPC #10, GOBBLERS KNOB, COLSTRIP	Rosebud	Sep-72	Dec-88
087	0711	12209	Fluoride (Paper Samplers)	MPC #11,SOUTH FORK OF COW CREEK,COLSTRIP	Rosebud	Sep-72	Dec-88

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
087	0711	42410	Sulfation Rate	MPC #11,SOUTH FORK OF COW CREEK,COLSTRIP	Rosebud	Sep-72	Dec-88
087	0712	12209	Fluoride (Paper Samplers)	MPC #12, MCDONALDS, COLSTRIP	Rosebud	Sep-72	Dec-88
087	0712	42410	Sulfation Rate	MPC #12, MCDONALDS, COLSTRIP	Rosebud	Sep-72	Dec-88
087	0713	12209	Fluoride (Paper Samplers)	MPC #13, PROSPECTOR HILL, COLSTRIP	Rosebud	Dec-72	Dec-88
087	0713	21101	Total Dustfall (Sp)	MPC #13, PROSPECTOR HILL, COLSTRIP	Rosebud	Dec-72	Dec-83
087	0713	42410	Sulfation Rate	MPC #13, PROSPECTOR HILL, COLSTRIP	Rosebud	Dec-72	Dec-88
087	0714	11101	Suspended Particulate (Tsp)	WECO #1-WEST OF GOLF COURSE, COLSTRIP	Rosebud	Jan-81	Apr-92
087	0714	11101	Suspended Particulate (Tsp)	WECO #1-WEST OF GOLF COURSE, COLSTRIP	Rosebud	Feb-87	Dec-90
087	0714	81102	Pm10 Total 0-10um Stp	WECO #1-WEST OF GOLF COURSE, COLSTRIP	Rosebud	May-92	Dec-97
087	0714	85101	Pm10 - Local Conditions	WECO #1-WEST OF GOLF COURSE, COLSTRIP	Rosebud	Jan-98	Jul-01
087	0715	11101	Suspended Particulate (Tsp)	WECO #2-E TOWN ENTRANCE,HIWAY 39,COLSTRP	Rosebud	Jan-81	Dec-84
087	0716	11101	Suspended Particulate (Tsp)	WECO #3-S TOWN,HIWAY 39 AREA B,COLSTRIP	Rosebud	Jan-81	Dec-84
087	0716	11101	Suspended Particulate (Tsp)	WECO #3-S TOWN,HIWAY 39 AREA B,COLSTRIP	Rosebud	Jan-81	Dec-84
087	0716	21101	Total Dustfall (Sp)	WECO #3-S TOWN,HIWAY 39 AREA B,COLSTRIP	Rosebud	Jan-81	Dec-84
087	0716	21101	Total Dustfall (Sp)	WECO #3-S TOWN,HIWAY 39 AREA B,COLSTRIP	Rosebud	Jan-81	Dec-84
087	0717	11101	Suspended Particulate (Tsp)	WECO #4-AREA A-INSIDE RR LOOP & LOADOUT	Rosebud	Jan-81	Dec-84

087	0717	21101	Total Dustfall (Sp)	WECO #4-AREA A-INSIDE RR LOOP & LOADOUT	Rosebud	Jan-81	Dec-84
087	0718	11101	Suspended Particulate (Tsp)	WECO #5-NEAR LOADOUT-N RR LOOP, COLSTRIP	Rosebud	Jan-81	Dec-82
087	0719	11101	Suspended Particulate (Tsp)	WECO #6-W COAL PILE AREA IN BULL PASTURE	Rosebud	Jan-81	Dec-82
087	0719	21101	Total Dustfall (Sp)	WECO #6-W COAL PILE AREA IN BULL PASTURE	Rosebud	Jan-81	Dec-81
087	0720	11101	Suspended Particulate (Tsp)	WECO #7-AREA LOADOUT IN RR TRACK LOOP	Rosebud	Jan-81	Dec-84
087	0720	21101	Total Dustfall (Sp)	WECO #7-AREA LOADOUT IN RR TRACK LOOP	Rosebud	Jan-81	Dec-84
087	0721	11101	Suspended Particulate (Tsp)	WECO #8-S TOWN IN PIT 6,RECLAIM AREA	Rosebud	Jan-81	Dec-84
087	0722	11101	Suspended Particulate (Tsp)	PEABODY-BIG SKY #1,MINE OFFICE,COLSTRIP	Rosebud	Jan-80	Dec-83
087	0722	61101	Wind Speed	PEABODY-BIG SKY #1,MINE OFFICE,COLSTRIP	Rosebud	Jan-89	Sep-03
087	0722	61102	Wind Direction	PEABODY-BIG SKY #1,MINE OFFICE,COLSTRIP	Rosebud	Jan-89	Sep-03
087	0722	61106	Std Dev Hz Wind Direction	PEABODY-BIG SKY #1,MINE OFFICE,COLSTRIP	Rosebud	Jan-89	Sep-03
087	0722	62101	Outdoor Temperature	PEABODY-BIG SKY #1,MINE OFFICE,COLSTRIP	Rosebud	Jan-89	Sep-03
087	0723	11101	Suspended Particulate (Tsp)	PEABODY-BIG SKY #2,SUBSTATION,COLSTRIP	Rosebud	Jan-80	Apr-90
087	0725	11101	Suspended Particulate (Tsp)	PEABODY-BIG SKY POWDER MAGAZINE #4	Rosebud	Jan-80	Dec-88
087	0725	81102	Pm10 Total 0-10um Stp	PEABODY-BIG SKY POWDER MAGAZINE #4	Rosebud	Jan-89	Dec-97
087	0725	85101	Pm10 - Local Conditions	PEABODY-BIG SKY POWDER MAGAZINE #4	Rosebud	Jan-98	Sep-03
087	0726	11101	Suspended Particulate (Tsp)	WECO #9-S TOWN AREA B-W HIWAY 39	Rosebud	Jan-81	Apr-92
087	0726	81102	Pm10 Total 0-10um Stp	WECO #9-S TOWN AREA B-W HIWAY 39	Rosebud	May-92	Dec-97

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
087	0726	85101	Pm10 - Local Conditions	WECO #9-S TOWN AREA B-W HIWAY 39	Rosebud	Jan-98	Jul-01
087	0727	11101	Suspended Particulate (Tsp)	WECO #10-S TOWN AREA B-RANGE HILLSIDE	Rosebud	Jan-81	Apr-92
087	0727	81102	Pm10 Total 0-10um Stp	WECO #10-S TOWN AREA B-RANGE HILLSIDE	Rosebud	May-92	Dec-97
087	0727	85101	Pm10 - Local Conditions	WECO #10-S TOWN AREA B-RANGE HILLSIDE	Rosebud	Jan-98	Jul-01
087	0728	11101	Suspended Particulate (Tsp)	WECO #11-W TOWN AREA C-FENCED PASTURE	Rosebud	Jan-81	Apr-92
087	0728	21101	Total Dustfall (Sp)	WECO #11-W TOWN AREA C-FENCED PASTURE	Rosebud	Jul-81	Dec-84
087	0728	81102	Pm10 Total 0-10um Stp	WECO #11-W TOWN AREA C-FENCED PASTURE	Rosebud	May-92	Dec-97
087	0728	85101	Pm10 - Local Conditions	WECO #11-W TOWN AREA C-FENCED PASTURE	Rosebud	Jan-98	Jul-01
087	0729	11101	Suspended Particulate (Tsp)	WECO #13-W TOWN AREA C-CATTLE PASTURE	Rosebud	Jun-87	Apr-92
087	0729	61101	Wind Speed	WECO #13-W TOWN AREA C-CATTLE PASTURE	Rosebud	Jan-81	Dec-82
087	0729	61102	Wind Direction	WECO #13-W TOWN AREA C-CATTLE PASTURE	Rosebud	Jan-81	Dec-82
087	0729	81102	Pm10 Total 0-10um Stp	WECO #13-W TOWN AREA C-CATTLE PASTURE	Rosebud	May-92	Dec-97
087	0729	85101	Pm10 - Local Conditions	WECO #13-W TOWN AREA C-CATTLE PASTURE	Rosebud	Jan-98	Jul-01
087	0730	61101	Wind Speed	WECO #13-NE TIP RR LOOP AREA A	Rosebud	Jan-82	Dec-87
087	0730	61102	Wind Direction	WECO #13-NE TIP RR LOOP AREA A	Rosebud	Jan-82	Dec-87
087	0731	11101	Suspended Particulate (Tsp)	WECO #5-3 MI NE COLSTRIP-AREA D WEST	Rosebud	Jan-82	May-91

087	0732	11101	Suspended Particulate (Tsp)	WESTERN ENERGY #14, COLSTRIP	Rosebud	Mar-90	Apr-92
087	0732	81102	Pm10 Total 0-10um Stp	WESTERN ENERGY #14, COLSTRIP	Rosebud	May-92	Dec-97
087	0732	85101	Pm10 - Local Conditions	WESTERN ENERGY #14, COLSTRIP	Rosebud	Jan-98	Jul-01
087	0733	11101	Suspended Particulate (Tsp)	WESTERN ENERGY CO - WECO #12, COLSTRIP	Rosebud	May-91	Apr-92
087	0733	81102	Pm10 Total 0-10um Stp	WESTERN ENERGY CO - WECO #12, COLSTRIP	Rosebud	May-92	Dec-97
087	0733	85101	Pm10 - Local Conditions	WESTERN ENERGY CO - WECO #12, COLSTRIP	Rosebud	Jan-98	Jul-01
087	0735	11101	Suspended Particulate (Tsp)	PEABODY-BIG SKY #5,TIPPLE	Rosebud	Jan-80	Apr-90
087	0736	11101	Suspended Particulate (Tsp)	PEABODY-BIG SKY #6,COULEE	Rosebud	Jan-80	Apr-90
087	0736	11101	Suspended Particulate (Tsp)	PEABODY-BIG SKY #6,COULEE	Rosebud	Jan-80	Apr-90
087	0737	11101	Suspended Particulate (Tsp)	PEABODY-BIG SKY #8,HIWAYE	Rosebud	Jan-80	Dec-85
087	0738	61101	Wind Speed	PEABODY-BIG SKY #9,UPPER AREA B	Rosebud	Jan-89	Sep-03
087	0738	61102	Wind Direction	PEABODY-BIG SKY #9,UPPER AREA B	Rosebud	Jan-89	Sep-03
087	0738	61106	Std Dev Hz Wind Direction	PEABODY-BIG SKY #9,UPPER AREA B	Rosebud	Jan-89	Sep-03
087	0738	62101	Outdoor Temperature	PEABODY-BIG SKY #9,UPPER AREA B	Rosebud	Jan-89	Sep-03
087	0738	81102	Pm10 Total 0-10um Stp	PEABODY-BIG SKY #9,UPPER AREA B	Rosebud	Jan-89	Dec-97
087	0738	85101	Pm10 - Local Conditions	PEABODY-BIG SKY #9,UPPER AREA B	Rosebud	Jan-98	Sep-03
087	0739	81102	Pm10 Total 0-10um Stp	PEABODY-BIG SKY #10,LOWER AREA B	Rosebud	Jul-89	Dec-97
087	0739	81102	Pm10 Total 0-10um Stp	PEABODY-BIG SKY #10,LOWER AREA B	Rosebud	Jul-89	Dec-90

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
087	0739	85101	Pm10 - Local Conditions	PEABODY-BIG SKY #10,LOWER AREA B	Rosebud	Jan-98	Sep-03
087	0763	42401	Sulfur Dioxide	ROSEBUD ENERGY #1, 7 MI N COLSTRIP	Rosebud	Jul-89	Apr-98
087	0763	61101	Wind Speed	ROSEBUD ENERGY #1, 7 MI N COLSTRIP	Rosebud	Apr-89	Apr-98
087	0763	61102	Wind Direction	ROSEBUD ENERGY #1, 7 MI N COLSTRIP	Rosebud	Apr-89	Apr-98
087	0763	61106	Std Dev Hz Wind Direction	ROSEBUD ENERGY #1, 7 MI N COLSTRIP	Rosebud	Apr-89	Apr-98
087	0763	62101	Outdoor Temperature	ROSEBUD ENERGY #1, 7 MI N COLSTRIP	Rosebud	Apr-89	Apr-98
087	0763	81102	Pm10 Total 0-10um Stp	ROSEBUD ENERGY #1, 7 MI N COLSTRIP	Rosebud	Jul-89	Dec-97
087	0763	81102	Pm10 Total 0-10um Stp	ROSEBUD ENERGY #1, 7 MI N COLSTRIP	Rosebud	Jul-89	Dec-90
087	0763	85101	Pm10 - Local Conditions	ROSEBUD ENERGY #1, 7 MI N COLSTRIP	Rosebud	Jan-98	Apr-99
087	0764	42401	Sulfur Dioxide	ROSEBUD ENERGY #2, 6 MI N COLSTRIP	Rosebud	May-89	Aug-92
087	0764	81102	Pm10 Total 0-10um Stp	ROSEBUD ENERGY #2, 6 MI N COLSTRIP	Rosebud	Jun-89	Aug-92
087	0765	42401	Sulfur Dioxide	ROSEBUD ENERGY #3-WIMERS,6 MI N COLSTRIP	Rosebud	May-89	Aug-92
087	0765	81102	Pm10 Total 0-10um Stp	ROSEBUD ENERGY #3-WIMERS,6 MI N COLSTRIP	Rosebud	Jun-89	Aug-92
087	0766	85101	Pm10 - Local Conditions	CELP ROSEBUD ENERGY COLSTRIP #1(6 MI N)	Rosebud	Apr-99	NULL
089	0001	11101	Suspended Particulate (Tsp)	MILLER RESIDENCE	Sanders	Jan-72	Dec-73
089	0001	11103	Benzene Soluble Organics(Tsp)	MILLER RESIDENCE	Sanders	Jan-72	Dec-72

089	0001	12110	Cadmium (Tsp)	MILLER RESIDENCE	Sanders	Jan-72	Dec-72
089	0001	12128	Lead (Tsp)	MILLER RESIDENCE	Sanders	Jan-72	Dec-72
089	0001	12167	Zinc (Tsp)	MILLER RESIDENCE	Sanders	Jan-72	Dec-72
089	0002	11101	Suspended Particulate (Tsp)	THOMPSON FALLS, MT	Sanders	Jan-78	Dec-78
089	0003	11101	Suspended Particulate (Tsp)	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Jan-83	Dec-87
089	0003	12102	Antimony (Tsp)	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Jun-84	Dec-85
089	0003	12103	Arsenic (Tsp)	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Jun-84	Dec-85
089	0003	12110	Cadmium (Tsp)	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Jan-84	Dec-84
089	0003	12112	Chromium (Tsp)	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Jan-84	Dec-84
089	0003	12114	Copper (Tsp)	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Jan-84	Dec-84
089	0003	12126	Iron (Tsp)	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Jan-84	Dec-84
089	0003	12128	Lead (Tsp)	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Jan-84	Dec-84
089	0003	12167	Zinc (Tsp)	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Jan-84	Dec-84
089	0003	81102	Pm10 Total 0-10um Stp	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Jan-85	Apr-87
089	0003	81102	Pm10 Total 0-10um Stp	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Apr-87	Jul-99
089	0003	85101	Pm10 - Local Conditions	SANDERS CO COURTHOUSE, THOMPSON FALLS	Sanders	Jan-98	Jul-99
089	0005	81102	Pm10 Total 0-10um Stp	RAILROAD,MADISON ST & PRESTON AVE,TFALLS	Sanders	Oct-90	Dec-91
089	0006	81102	Pm10 Total 0-10um Stp	MUSTER RANCH, N OF THOMPSON FALLS	Sanders	Oct-90	Dec-91

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
089	0007	68101	Sample Flow Rate- Cv	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Jan-00	NULL
089	0007	68102	Sample Volume	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Jan-00	NULL
089	0007	68103	Ambient Min Temperature	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Jan-00	NULL
089	0007	68104	Ambient Max Temperature	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Jan-00	NULL
089	0007	68105	Ambient Avg Temperature	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Jan-00	NULL
089	0007	68106	Sample Min Baro Pressure	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Jan-00	NULL
089	0007	68107	Sample Max Baro Pressure	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Jan-00	NULL
089	0007	68108	Sample Avg Baro Pressure	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Jan-00	NULL
089	0007	68109	Elapsed Sample Time	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Jan-00	NULL
089	0007	81102	Pm10 Total 0-10um Stp	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Oct-99	NULL
089	0007	85101	Pm10 - Local Conditions	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Oct-99	NULL
089	0007	88101	Pm2.5 - Local Conditions	THOMPSON FALLS HIGH SCHL 1M N OF HWY 200	Sanders	Jan-00	NULL
091	0001	42410	Sulfation Rate	BOX 506 POPLAR MT 59255	Sheridan	Jan-83	Dec-85
093	0001	11101	Suspended Particulate (Tsp)	HARRISON AVE FIRE STATION #5	Silver Bow	Jan-62	Dec-72
093	0001	11103	Benzene Soluble Organics(Tsp)	HARRISON AVE FIRE STATION #5	Silver Bow	Jan-62	Dec-71
093	0001	12103	Arsenic (Tsp)	HARRISON AVE FIRE STATION #5	Silver Bow	Jan-62	Dec-72

093	0001	12209	Fluoride (Paper Samplers)	HARRISON AVE FIRE STATION #5	Silver Bow	Jan-62	Dec-62
093	0001	12403	Sulfate (Tsp)	HARRISON AVE FIRE STATION #5	Silver Bow	Jan-71	Dec-71
093	0001	12202	Fluoride(Tsp)	HARRISON AVE FIRE STATION #5	Silver Bow	Jan-62	Dec-62
093	0001	12110	Cadmium (Tsp)	HARRISON AVE FIRE STATION #5	Silver Bow	Jan-71	Dec-72
093	0001	12128	Lead (Tsp)	HARRISON AVE FIRE STATION #5	Silver Bow	Jan-71	Dec-72
093	0001	12167	Zinc (Tsp)	HARRISON AVE FIRE STATION #5	Silver Bow	Jan-71	Dec-72
093	0002	11101	Suspended Particulate (Tsp)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	Silver Bow	Jan-71	Dec-72
093	0002	11103	Benzene Soluble Organics(Tsp)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	Silver Bow	Jan-71	Dec-71
093	0002	12103	Arsenic (Tsp)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	Silver Bow	Jan-71	Dec-72
093	0002	12110	Cadmium (Tsp)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	Silver Bow	Jan-71	Dec-72
093	0002	12128	Lead (Tsp)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	Silver Bow	Jan-71	Dec-72
093	0002	12167	Zinc (Tsp)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	Silver Bow	Jan-71	Dec-72
093	0002	12202	Fluoride(Tsp)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	Silver Bow	Jan-71	Dec-71
093	0002	12209	Fluoride (Paper Samplers)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	Silver Bow	Jan-71	Dec-71
093	0002	12403	Sulfate (Tsp)	WEBSTER-GARFIELD SCH MONT AVE & FRONT ST	Silver Bow	Jan-71	Dec-71
093	0003	11101	Suspended Particulate (Tsp)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	Silver Bow	Jan-71	Dec-77
093	0003	11103	Benzene Soluble Organics(Tsp)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	Silver Bow	Jan-71	Dec-77
093	0003	12103	Arsenic (Tsp)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	Silver Bow	Jan-71	Dec-72

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
093	0003	12110	Cadmium (Tsp)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	Silver Bow	Jan-71	Dec-72
093	0003	12128	Lead (Tsp)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	Silver Bow	Jan-71	Dec-72
093	0003	12167	Zinc (Tsp)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	Silver Bow	Jan-71	Dec-72
093	0003	12403	Sulfate (Tsp)	SILVER BOW GEN. HOSP. 3000 CONTINENTAL	Silver Bow	Jan-71	Dec-71
093	0004	11101	Suspended Particulate (Tsp)	WHITTIER SCHOOL OTTAWA ST	Silver Bow	Jan-71	Dec-71
093	0004	11103	Benzene Soluble Organics(Tsp)	WHITTIER SCHOOL OTTAWA ST	Silver Bow	Jan-71	Dec-71
093	0004	12103	Arsenic (Tsp)	WHITTIER SCHOOL OTTAWA ST	Silver Bow	Jan-71	Dec-71
093	0004	12110	Cadmium (Tsp)	WHITTIER SCHOOL OTTAWA ST	Silver Bow	Jan-71	Dec-71
093	0004	12128	Lead (Tsp)	WHITTIER SCHOOL OTTAWA ST	Silver Bow	Jan-71	Dec-71
093	0004	12167	Zinc (Tsp)	WHITTIER SCHOOL OTTAWA ST	Silver Bow	Jan-71	Dec-71
093	0004	12202	Fluoride(Tsp)	WHITTIER SCHOOL OTTAWA ST	Silver Bow	Jan-71	Dec-71
093	0004	12209	Fluoride (Paper Samplers)	WHITTIER SCHOOL OTTAWA ST	Silver Bow	Jan-71	Dec-71
093	0004	12403	Sulfate (Tsp)	WHITTIER SCHOOL OTTAWA ST	Silver Bow	Jan-71	Dec-71
093	0005	11101	Suspended Particulate (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-71	Dec-87
093	0005	11101	Suspended Particulate (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-82	Dec-84
093	0005	11103	Benzene Soluble Organics(Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-71	Dec-71

093	0005	11203	Light Scatter	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jul-89	Mar-93
093	0005	12101	Aluminum (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-78	Dec-79
093	0005	12102	Antimony (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-78	Dec-78
093	0005	12103	Arsenic (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-71	Dec-83
093	0005	12110	Cadmium (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-71	Dec-83
093	0005	12112	Chromium (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-78	Dec-80
093	0005	12114	Copper (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-78	Dec-83
093	0005	12126	Iron (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-78	Dec-79
093	0005	12128	Lead (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-71	Dec-83
093	0005	12132	Manganese (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-78	Dec-80
093	0005	12136	Nickel (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-78	Dec-80
093	0005	12164	Vanadium (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-78	Dec-80
093	0005	12167	Zinc (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-71	Dec-83
093	0005	12202	Fluoride(Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-71	Dec-71
093	0005	12209	Fluoride (Paper Samplers)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-71	Dec-71
093	0005	12306	Nitrate (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-76	Dec-80
093	0005	12403	Sulfate (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-76	Dec-82
093	0005	12403	Sulfate (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-71	Dec-78

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
093 0005	12403 Sulfate (Tsp)	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-82	Dec-82
093 0005	68101 Sample Flow Rate- Cv	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-99	NULL
093 0005	68102 Sample Volume	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-99	NULL
093 0005	68103 Ambient Min Temperature	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-99	NULL
093 0005	68104 Ambient Max Temperature	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-99	NULL
093 0005	68105 Ambient Avg Temperature	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-99	NULL
093 0005	68106 Sample Min Baro Pressure	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-99	NULL
093 0005	68107 Sample Max Baro Pressure	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-99	NULL
093 0005	68108 Sample Avg Baro Pressure	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-99	NULL
093 0005	68109 Elapsed Sample Time	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-99	NULL
093 0005	81102 Pm10 Total 0-10um Stp	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-85	Dec-87
093 0005	81102 Pm10 Total 0-10um Stp	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	May-87	Nov-97
093 0005	81102 Pm10 Total 0-10um Stp	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Oct-89	Dec-90
093 0005	81102 Pm10 Total 0-10um Stp	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Aug-93	NULL
093 0005	85101 Pm10 - Local Conditions	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Jan-00	NULL
093 0005	88101 Pm2.5 - Local Conditions	GREELEY SCHOOL, SILVER BOW BLVD	Silver Bow	Feb-99	NULL

093	0006	11101	Suspended Particulate (Tsp)	COURTHOUSE MONTANA & GRANIT	Silver Bow	Jan-71	Dec-72
093	0006	11103	Benzene Soluble Organics(Tsp)	COURTHOUSE MONTANA & GRANIT	Silver Bow	Jan-71	Dec-71
093	0006	12103	Arsenic (Tsp)	COURTHOUSE MONTANA & GRANIT	Silver Bow	Jan-71	Dec-72
093	0006	12110	Cadmium (Tsp)	COURTHOUSE MONTANA & GRANIT	Silver Bow	Jan-71	Dec-72
093	0006	12128	Lead (Tsp)	COURTHOUSE MONTANA & GRANIT	Silver Bow	Jan-71	Dec-72
093	0006	12167	Zinc (Tsp)	COURTHOUSE MONTANA & GRANIT	Silver Bow	Jan-71	Dec-72
093	0006	12202	Fluoride(Tsp)	COURTHOUSE MONTANA & GRANIT	Silver Bow	Jan-71	Dec-71
093	0006	12209	Fluoride (Paper Samplers)	COURTHOUSE MONTANA & GRANIT	Silver Bow	Jan-71	Dec-71
093	0006	12403	Sulfate (Tsp)	COURTHOUSE MONTANA & GRANIT	Silver Bow	Jan-71	Dec-71
093	0007	11101	Suspended Particulate (Tsp)	EMERSON SCHOOL MARSHA & PHILLIPS	Silver Bow	Jan-71	Dec-71
093	0007	11103	Benzene Soluble Organics(Tsp)	EMERSON SCHOOL MARSHA & PHILLIPS	Silver Bow	Jan-71	Dec-71
093	0007	12103	Arsenic (Tsp)	EMERSON SCHOOL MARSHA & PHILLIPS	Silver Bow	Jan-71	Dec-71
093	0007	12110	Cadmium (Tsp)	EMERSON SCHOOL MARSHA & PHILLIPS	Silver Bow	Jan-71	Dec-71
093	0007	12128	Lead (Tsp)	EMERSON SCHOOL MARSHA & PHILLIPS	Silver Bow	Jan-71	Dec-71
093	0007	12167	Zinc (Tsp)	EMERSON SCHOOL MARSHA & PHILLIPS	Silver Bow	Jan-71	Dec-71
093	0007	12202	Fluoride(Tsp)	EMERSON SCHOOL MARSHA & PHILLIPS	Silver Bow	Jan-71	Dec-71
093	0007	12209	Fluoride (Paper Samplers)	EMERSON SCHOOL MARSHA & PHILLIPS	Silver Bow	Jan-71	Dec-71
093	0007	12403	Sulfate (Tsp)	EMERSON SCHOOL MARSHA & PHILLIPS	Silver Bow	Jan-71	Dec-71

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
093	0008	81102	Pm10 Total 0-10um Stp	BUTTE-GREENHOUSE, SW CORNER FLORAL/MEADE	Silver Bow	Jan-91	Jun-92
093	0010	11101	Suspended Particulate (Tsp)	2201 COTTONWOOD DRIVE	Silver Bow	Jan-72	Dec-72
093	0010	12103	Arsenic (Tsp)	2201 COTTONWOOD DRIVE	Silver Bow	Jan-72	Dec-72
093	0010	12110	Cadmium (Tsp)	2201 COTTONWOOD DRIVE	Silver Bow	Jan-72	Dec-72
093	0010	12128	Lead (Tsp)	2201 COTTONWOOD DRIVE	Silver Bow	Jan-72	Dec-72
093	0010	12167	Zinc (Tsp)	2201 COTTONWOOD DRIVE	Silver Bow	Jan-72	Dec-72
093	0011	11101	Suspended Particulate (Tsp)	ATKINS RES 139 MISSOULA AVE	Silver Bow	Jan-73	Dec-80
093	0011	12101	Aluminum (Tsp)	ATKINS RES 139 MISSOULA AVE	Silver Bow	Jan-78	Dec-78
093	0011	12103	Arsenic (Tsp)	ATKINS RES 139 MISSOULA AVE	Silver Bow	Jan-78	Dec-78
093	0011	12110	Cadmium (Tsp)	ATKINS RES 139 MISSOULA AVE	Silver Bow	Jan-78	Dec-78
093	0011	12114	Copper (Tsp)	ATKINS RES 139 MISSOULA AVE	Silver Bow	Jan-78	Dec-78
093	0011	12126	Iron (Tsp)	ATKINS RES 139 MISSOULA AVE	Silver Bow	Jan-78	Dec-78
093	0011	12128	Lead (Tsp)	ATKINS RES 139 MISSOULA AVE	Silver Bow	Jan-78	Dec-78
093	0011	12167	Zinc (Tsp)	ATKINS RES 139 MISSOULA AVE	Silver Bow	Jan-78	Dec-78
093	0012	11101	Suspended Particulate (Tsp)	HARRISON SCHOOL	Silver Bow	Jan-74	Dec-74
093	0013	11101	Suspended Particulate (Tsp)	HILLCREST	Silver Bow	Jan-74	Dec-75

093	0014	11101	Suspended Particulate (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-75	Dec-79
093	0014	12101	Aluminum (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-78
093	0014	12126	Iron (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-78
093	0014	12132	Manganese (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-79
093	0014	12164	Vanadium (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-79
093	0014	12306	Nitrate (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-79
093	0014	12403	Sulfate (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-78
093	0014	12403	Sulfate (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-79
093	0014	12167	Zinc (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-78
093	0014	12136	Nickel (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-79
093	0014	12128	Lead (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-79
093	0014	12114	Copper (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-79
093	0014	12103	Arsenic (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-79
093	0014	12110	Cadmium (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-79
093	0014	12112	Chromium (Tsp)	RICHER RESIDENCE	Silver Bow	Jan-78	Dec-79
093	0015	42101	Carbon Monoxide	ALPINE WEST,1 BLK E PINE & STUART,BUTTE	Silver Bow	Jan-77	Dec-79
093	0015	42602	Nitrogen Dioxide	ALPINE WEST,1 BLK E PINE & STUART,BUTTE	Silver Bow	Jan-77	Dec-77
093	0015	42602	Nitrogen Dioxide	ALPINE WEST,1 BLK E PINE & STUART,BUTTE	Silver Bow	Jan-77	Dec-77

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
093 0015	44201 Ozone	ALPINE WEST,1 BLK E PINE & STUART,BUTTE	Silver Bow	Jan-77	Dec-77
093 0016	11101 Suspended Particulate (Tsp)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	Silver Bow	Jan-77	Dec-78
093 0016	12101 Aluminum (Tsp)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	Silver Bow	Jan-78	Dec-78
093 0016	12103 Arsenic (Tsp)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	Silver Bow	Jan-78	Dec-78
093 0016	12110 Cadmium (Tsp)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	Silver Bow	Jan-78	Dec-78
093 0016	12114 Copper (Tsp)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	Silver Bow	Jan-78	Dec-78
093 0016	12126 Iron (Tsp)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	Silver Bow	Jan-78	Dec-78
093 0016	12128 Lead (Tsp)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	Silver Bow	Jan-78	Dec-78
093 0016	12167 Zinc (Tsp)	GILMAN CONSTRUCTION,CONTINENTAL DR,BUTTE	Silver Bow	Jan-78	Dec-78
093 0017	11101 Suspended Particulate (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-83
093 0017	12101 Aluminum (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093 0017	12103 Arsenic (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093 0017	12110 Cadmium (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093 0017	12112 Chromium (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093 0017	12114 Copper (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093 0017	12126 Iron (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79

093	0017	12128	Lead (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093	0017	12132	Manganese (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093	0017	12136	Nickel (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093	0017	12164	Vanadium (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093	0017	12167	Zinc (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093	0017	12306	Nitrate (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093	0017	12403	Sulfate (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-79
093	0017	12403	Sulfate (Tsp)	HEBGEN PARK #1	Silver Bow	Jan-78	Dec-78
093	0018	11101	Suspended Particulate (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-83
093	0018	11203	Light Scatter	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-80
093	0018	12101	Aluminum (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-79
093	0018	12103	Arsenic (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-80
093	0018	12110	Cadmium (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-80
093	0018	12112	Chromium (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-80
093	0018	12114	Copper (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-80
093	0018	12126	Iron (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-79
093	0018	12128	Lead (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-80
093	0018	12132	Manganese (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-80

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
093 0018	12136 Nickel (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-80
093 0018	12164 Vanadium (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-79	Dec-80
093 0018	12167 Zinc (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-79
093 0018	12306 Nitrate (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-80
093 0018	12403 Sulfate (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-82
093 0018	12403 Sulfate (Tsp)	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-78
093 0018	42101 Carbon Monoxide	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-79
093 0018	42401 Sulfur Dioxide	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-79
093 0018	42601 Nitric Oxide	HEBGEN PARK #2	Silver Bow	Jan-80	Dec-81
093 0018	42602 Nitrogen Dioxide	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-81
093 0018	42603 Oxides Of Nitrogen	HEBGEN PARK #2	Silver Bow	Jan-80	Dec-81
093 0018	43101 Total Hydrocarbons	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-78
093 0018	43201 Methane	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-78
093 0018	44201 Ozone	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-81
093 0018	61101 Wind Speed	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-81
093 0018	61102 Wind Direction	HEBGEN PARK #2	Silver Bow	Jan-78	Dec-81

093	0019	11101	Suspended Particulate (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-83
093	0019	12101	Aluminum (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-79
093	0019	12103	Arsenic (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-80
093	0019	12110	Cadmium (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-80
093	0019	12112	Chromium (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-80
093	0019	12114	Copper (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-80
093	0019	12126	Iron (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-79
093	0019	12128	Lead (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-80
093	0019	12132	Manganese (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-80
093	0019	12136	Nickel (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-80
093	0019	12164	Vanadium (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-79	Dec-80
093	0019	12167	Zinc (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-79
093	0019	12306	Nitrate (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-80
093	0019	12403	Sulfate (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-82
093	0019	12403	Sulfate (Tsp)	DR CANTY RESIDENCE,225 S CLARK, BUTTE	Silver Bow	Jan-78	Dec-78
093	0020	11101	Suspended Particulate (Tsp)	FLORAL PARK	Silver Bow	Jan-78	Dec-83
093	0020	12101	Aluminum (Tsp)	FLORAL PARK	Silver Bow	Jan-78	Dec-79
093	0020	12103	Arsenic (Tsp)	FLORAL PARK	Silver Bow	Jan-78	Dec-80

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
093	0020	12110	Cadmium (Tsp)	FLORAL PARK	Silver Bow	Jan-78	Dec-80
093	0020	12112	Chromium (Tsp)	FLORAL PARK	Silver Bow	Jan-79	Dec-80
093	0020	12114	Copper (Tsp)	FLORAL PARK	Silver Bow	Jan-78	Dec-80
093	0020	12126	Iron (Tsp)	FLORAL PARK	Silver Bow	Jan-78	Dec-79
093	0020	12128	Lead (Tsp)	FLORAL PARK	Silver Bow	Jan-78	Dec-80
093	0020	12132	Manganese (Tsp)	FLORAL PARK	Silver Bow	Jan-78	Dec-80
093	0020	12136	Nickel (Tsp)	FLORAL PARK	Silver Bow	Jan-79	Dec-80
093	0020	12164	Vanadium (Tsp)	FLORAL PARK	Silver Bow	Jan-79	Dec-80
093	0020	12167	Zinc (Tsp)	FLORAL PARK	Silver Bow	Jan-78	Dec-79
093	0020	12306	Nitrate (Tsp)	FLORAL PARK	Silver Bow	Jan-78	Dec-80
093	0020	12403	Sulfate (Tsp)	FLORAL PARK	Silver Bow	Jan-78	Dec-80
093	0022	11203	Light Scatter	CONTINENTAL DR & ALPINE, BUTTE	Silver Bow	Sep-87	Dec-88
093	0022	42101	Carbon Monoxide	CONTINENTAL DR & ALPINE, BUTTE	Silver Bow	Sep-87	Dec-88
093	0022	61101	Wind Speed	CONTINENTAL DR & ALPINE, BUTTE	Silver Bow	Sep-87	Dec-88
093	0022	61102	Wind Direction	CONTINENTAL DR & ALPINE, BUTTE	Silver Bow	Sep-87	Dec-88
093	0029	11101	Suspended Particulate (Tsp)	BLAINE SCHOOL,N.MAIN,WALKERVILLE	Silver Bow	Jan-80	Dec-82

093	0031	81102	Pm10 Total 0-10um Stp	BEAL MOUNTAIN MINE-LITTLE GULCH #1	Silver Bow	Dec-87	Sep-88
093	0031	81102	Pm10 Total 0-10um Stp	BEAL MOUNTAIN MINE-LITTLE GULCH #1	Silver Bow	Jan-88	Dec-90
093	0032	11101	Suspended Particulate (Tsp)	BEAL MOUNTAIN MINE - WHITE PINE CR #2	Silver Bow	Apr-88	Oct-88
093	0032	81102	Pm10 Total 0-10um Stp	BEAL MOUNTAIN MINE - WHITE PINE CR #2	Silver Bow	Dec-87	Mar-90
093	0033	81102	Pm10 Total 0-10um Stp	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3	Silver Bow	Dec-87	Dec-97
093	0033	85101	Pm10 - Local Conditions	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3	Silver Bow	Jan-98	NULL
093	0033	82102	Antimony (Pm10) Stp	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3	Silver Bow	Jan-91	Mar-93
093	0033	82103	Arsenic (Pm10) Stp	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3	Silver Bow	Jan-91	Mar-93
093	0033	82112	Chromium (Pm10) Stp	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3	Silver Bow	Jan-91	Mar-93
093	0033	82128	Lead (Pm10) Stp	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3	Silver Bow	Jan-91	Mar-93
093	0033	82167	Zinc (Pm10) Stp	BEAL MOUNTAIN MINE-BEEFSTRAIGHT CR #3	Silver Bow	Jan-91	Mar-93
093	0034	61101	Wind Speed	BEAL MOUNTAIN, WEATHER STATION #4	Silver Bow	Dec-87	Dec-95
093	0034	61102	Wind Direction	BEAL MOUNTAIN, WEATHER STATION #4	Silver Bow	Dec-87	Dec-95
093	0034	61106	Std Dev Hz Wind Direction	BEAL MOUNTAIN, WEATHER STATION #4	Silver Bow	Oct-89	Dec-95
093	0034	62101	Outdoor Temperature	BEAL MOUNTAIN, WEATHER STATION #4	Silver Bow	Jan-90	Dec-95
093	0035	81102	Pm10 Total 0-10um Stp	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5	Silver Bow	Nov-88	Apr-91
093	0035	82102	Antimony (Pm10) Stp	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5	Silver Bow	Jan-91	Apr-91
093	0035	82103	Arsenic (Pm10) Stp	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5	Silver Bow	Jan-91	Apr-91

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
093	0035	82112	Chromium (Pm10) Stp	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5	Silver Bow	Jan-91	Apr-91
093	0035	82128	Lead (Pm10) Stp	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5	Silver Bow	Jan-91	Apr-91
093	0035	82167	Zinc (Pm10) Stp	BEAL MOUNTAIN MINE-LOWER ACCESS ROAD #5	Silver Bow	Jan-91	Apr-91
093	0036	11101	Suspended Particulate (Tsp)	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Oct-88	Feb-91
093	0036	12102	Antimony (Tsp)	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Jan-91	Feb-91
093	0036	12103	Arsenic (Tsp)	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Jan-91	Feb-91
093	0036	12112	Chromium (Tsp)	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Jan-91	Feb-91
093	0036	12128	Lead (Tsp)	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Jan-91	Feb-91
093	0036	12167	Zinc (Tsp)	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Jan-91	Feb-91
093	0036	81102	Pm10 Total 0-10um Stp	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Oct-88	Dec-97
093	0036	81102	Pm10 Total 0-10um Stp	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Oct-88	Dec-90
093	0036	82102	Antimony (Pm10) Stp	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Jan-91	Mar-93
093	0036	82103	Arsenic (Pm10) Stp	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Jan-91	Mar-93
093	0036	82112	Chromium (Pm10) Stp	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Jan-91	Mar-93
093	0036	82128	Lead (Pm10) Stp	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Jan-91	Mar-93
093	0036	82167	Zinc (Pm10) Stp	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Jan-91	Mar-93

093	0036	85101	Pm10 - Local Conditions	PEGASUS BEAL MOUNTAIN MINE #6	Silver Bow	Jan-98	NULL
093	0037	81102	Pm10 Total 0-10um Stp	BEAL MOUNTAIN, OFFICE SITE #7	Silver Bow	Apr-90	Jun-91
093	0037	82102	Antimony (Pm10) Stp	BEAL MOUNTAIN, OFFICE SITE #7	Silver Bow	Jan-91	Jun-91
093	0037	82103	Arsenic (Pm10) Stp	BEAL MOUNTAIN, OFFICE SITE #7	Silver Bow	Jan-91	Jun-91
093	0037	82112	Chromium (Pm10) Stp	BEAL MOUNTAIN, OFFICE SITE #7	Silver Bow	Jan-91	Jun-91
093	0037	82128	Lead (Pm10) Stp	BEAL MOUNTAIN, OFFICE SITE #7	Silver Bow	Jan-91	Jun-91
093	0037	82167	Zinc (Pm10) Stp	BEAL MOUNTAIN, OFFICE SITE #7	Silver Bow	Jan-91	Jun-91
093	0038	81102	Pm10 Total 0-10um Stp	BEAL MOUNTAIN-CRUSHER UPWIND #8	Silver Bow	Jun-91	Dec-97
093	0038	82102	Antimony (Pm10) Stp	BEAL MOUNTAIN-CRUSHER UPWIND #8	Silver Bow	Jun-91	Mar-93
093	0038	82103	Arsenic (Pm10) Stp	BEAL MOUNTAIN-CRUSHER UPWIND #8	Silver Bow	Jun-91	Mar-93
093	0038	82112	Chromium (Pm10) Stp	BEAL MOUNTAIN-CRUSHER UPWIND #8	Silver Bow	Jun-91	Mar-93
093	0038	82128	Lead (Pm10) Stp	BEAL MOUNTAIN-CRUSHER UPWIND #8	Silver Bow	Jun-91	Mar-93
093	0038	82167	Zinc (Pm10) Stp	BEAL MOUNTAIN-CRUSHER UPWIND #8	Silver Bow	Jun-91	Mar-93
093	0038	85101	Pm10 - Local Conditions	BEAL MOUNTAIN-CRUSHER UPWIND #8	Silver Bow	Jan-98	NULL
093	0041	11101	Suspended Particulate (Tsp)	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-84	Dec-91
093	0041	12103	Arsenic (Tsp)	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-84	Dec-91
093	0041	12110	Cadmium (Tsp)	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-84	Dec-91
093	0041	12114	Copper (Tsp)	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-84	Dec-91

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
093	0041	12126	Iron (Tsp)	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-84	Dec-85
093	0041	12128	Lead (Tsp)	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-84	Dec-91
093	0041	12134	Molybedenum (Tsp)	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-84	Dec-85
093	0041	12167	Zinc (Tsp)	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-84	Dec-85
093	0041	21101	Total Dustfall (Sp)	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-84	Dec-85
093	0041	61101	Wind Speed	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-84	Dec-85
093	0041	61102	Wind Direction	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-84	Dec-85
093	0041	81102	Pm10 Total 0-10um Stp	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Oct-91	Dec-97
093	0041	82114	Copper (Pm10) Stp	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Oct-91	Dec-99
093	0041	82128	Lead (Pm10) Stp	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Oct-91	Dec-99
093	0041	85101	Pm10 - Local Conditions	MONTANA RESOURCES-ALPINE, HAYS STREET	Silver Bow	Jan-98	Dec-99
093	0042	11101	Suspended Particulate (Tsp)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-84	Dec-91
093	0042	12103	Arsenic (Tsp)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-84	Dec-91
093	0042	12110	Cadmium (Tsp)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-84	Dec-91
093	0042	12114	Copper (Tsp)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-84	Dec-91
093	0042	12126	Iron (Tsp)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-84	Dec-85

093	0042	12128	Lead (Tsp)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-84	Dec-91
093	0042	12134	Molybedenum (Tsp)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-85	Dec-85
093	0042	12167	Zinc (Tsp)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-84	Dec-85
093	0042	21101	Total Dustfall (Sp)	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-84	Dec-85
093	0042	61101	Wind Speed	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-84	Dec-84
093	0042	61102	Wind Direction	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-84	Dec-84
093	0042	81102	Pm10 Total 0-10um Stp	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Oct-91	Dec-97
093	0042	82114	Copper (Pm10) Stp	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Oct-91	Mar-02
093	0042	82128	Lead (Pm10) Stp	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Oct-91	Mar-02
093	0042	85101	Pm10 - Local Conditions	MONTANA RESOURCES-HILLCREST,HOUSING DIST	Silver Bow	Jan-98	Mar-02
093	0043	11101	Suspended Particulate (Tsp)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Jan-84	Dec-91
093	0043	12103	Arsenic (Tsp)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Jan-84	Dec-91
093	0043	12110	Cadmium (Tsp)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Jan-84	Dec-91
093	0043	12114	Copper (Tsp)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Jan-84	Dec-91
093	0043	12126	Iron (Tsp)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Jan-84	Dec-85
093	0043	12128	Lead (Tsp)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Jan-84	Dec-91
093	0043	12134	Molybedenum (Tsp)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Jan-85	Dec-85
093	0043	12167	Zinc (Tsp)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Jan-84	Dec-85

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
093	0043	21101	Total Dustfall (Sp)	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Jan-84	Dec-85
093	0043	81102	Pm10 Total 0-10um Stp	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Oct-91	Oct-96
093	0043	82114	Copper (Pm10) Stp	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Oct-91	Oct-96
093	0043	82128	Lead (Pm10) Stp	MONTANA RESOURCES-BELMONT, 500 E MERCURY	Silver Bow	Oct-91	Oct-96
093	0044	61101	Wind Speed	MONTANA RESOURCES-GUARD SHACK, BUTTE	Silver Bow	Jul-90	Mar-02
093	0044	61102	Wind Direction	MONTANA RESOURCES-GUARD SHACK, BUTTE	Silver Bow	Jul-90	Mar-02
093	0044	61106	Std Dev Hz Wind Direction	MONTANA RESOURCES-GUARD SHACK, BUTTE	Silver Bow	Jul-90	Mar-02
093	0044	62101	Outdoor Temperature	MONTANA RESOURCES-GUARD SHACK, BUTTE	Silver Bow	Jul-90	Mar-02
093	0045	11101	Suspended Particulate (Tsp)	ANACONDA MINERALS-YATES,2411 LOCUST	Silver Bow	Jan-84	Dec-85
093	0045	12103	Arsenic (Tsp)	ANACONDA MINERALS-YATES,2411 LOCUST	Silver Bow	Jan-84	Dec-85
093	0045	12110	Cadmium (Tsp)	ANACONDA MINERALS-YATES,2411 LOCUST	Silver Bow	Jan-84	Dec-85
093	0045	12114	Copper (Tsp)	ANACONDA MINERALS-YATES,2411 LOCUST	Silver Bow	Jan-84	Dec-85
093	0045	12126	Iron (Tsp)	ANACONDA MINERALS-YATES,2411 LOCUST	Silver Bow	Jan-84	Dec-85
093	0045	12128	Lead (Tsp)	ANACONDA MINERALS-YATES,2411 LOCUST	Silver Bow	Jan-84	Dec-85
093	0045	12134	Molybedenum (Tsp)	ANACONDA MINERALS-YATES,2411 LOCUST	Silver Bow	Jan-85	Dec-85
093	0045	12167	Zinc (Tsp)	ANACONDA MINERALS-YATES,2411 LOCUST	Silver Bow	Jan-84	Dec-85

093	0046	11101	Suspended Particulate (Tsp)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	Silver Bow	Jan-84	Dec-85
093	0046	12103	Arsenic (Tsp)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	Silver Bow	Jan-84	Dec-85
093	0046	12110	Cadmium (Tsp)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	Silver Bow	Jan-84	Dec-85
093	0046	12114	Copper (Tsp)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	Silver Bow	Jan-84	Dec-85
093	0046	12126	Iron (Tsp)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	Silver Bow	Jan-84	Dec-85
093	0046	12128	Lead (Tsp)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	Silver Bow	Jan-84	Dec-85
093	0046	12134	Molybedenum (Tsp)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	Silver Bow	Jan-85	Dec-85
093	0046	12167	Zinc (Tsp)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	Silver Bow	Jan-84	Dec-85
093	0046	21101	Total Dustfall (Sp)	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	Silver Bow	Jan-84	Dec-85
093	0046	61101	Wind Speed	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	Silver Bow	Jan-84	Dec-85
093	0046	61102	Wind Direction	ANACONDA MINERALS-KAW AVE,GEORGE ST&MONT	Silver Bow	Jan-84	Dec-85
093	0047	11101	Suspended Particulate (Tsp)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	Silver Bow	Jan-84	Dec-85
093	0047	12103	Arsenic (Tsp)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	Silver Bow	Jan-84	Dec-85
093	0047	12128	Lead (Tsp)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	Silver Bow	Jan-84	Dec-85
093	0047	12167	Zinc (Tsp)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	Silver Bow	Jan-84	Dec-85
093	0047	12134	Molybedenum (Tsp)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	Silver Bow	Jan-85	Dec-85
093	0047	12126	Iron (Tsp)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	Silver Bow	Jan-84	Dec-85
093	0047	12110	Cadmium (Tsp)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	Silver Bow	Jan-84	Dec-85

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
093	0047	12114	Copper (Tsp)	ANACONDA MINERALS-LEXINGTON AVE,N MAIN	Silver Bow	Jan-84	Dec-85
093	0048	11101	Suspended Particulate (Tsp)	ANACONDA MINERALS-BARREL POND,CONC YARD	Silver Bow	Jan-84	Dec-85
093	0048	12103	Arsenic (Tsp)	ANACONDA MINERALS-BARREL POND,CONC YARD	Silver Bow	Jan-84	Dec-85
093	0048	12110	Cadmium (Tsp)	ANACONDA MINERALS-BARREL POND,CONC YARD	Silver Bow	Jan-84	Dec-85
093	0048	12114	Copper (Tsp)	ANACONDA MINERALS-BARREL POND,CONC YARD	Silver Bow	Jan-84	Dec-85
093	0048	12126	Iron (Tsp)	ANACONDA MINERALS-BARREL POND,CONC YARD	Silver Bow	Jan-84	Dec-85
093	0048	12128	Lead (Tsp)	ANACONDA MINERALS-BARREL POND,CONC YARD	Silver Bow	Jan-84	Dec-85
093	0048	12134	Molybedenum (Tsp)	ANACONDA MINERALS-BARREL POND,CONC YARD	Silver Bow	Jan-85	Dec-85
093	0048	12167	Zinc (Tsp)	ANACONDA MINERALS-BARREL POND,CONC YARD	Silver Bow	Jan-84	Dec-85
093	0049	11101	Suspended Particulate (Tsp)	MONTANA RESOURCES-COLUMBIA GARDENS	Silver Bow	Jan-87	Dec-91
093	0049	12103	Arsenic (Tsp)	MONTANA RESOURCES-COLUMBIA GARDENS	Silver Bow	Jan-87	Dec-91
093	0049	12110	Cadmium (Tsp)	MONTANA RESOURCES-COLUMBIA GARDENS	Silver Bow	Jan-87	Dec-91
093	0049	12114	Copper (Tsp)	MONTANA RESOURCES-COLUMBIA GARDENS	Silver Bow	Jan-87	Dec-91
093	0049	12128	Lead (Tsp)	MONTANA RESOURCES-COLUMBIA GARDENS	Silver Bow	Jan-87	Dec-91
093	0050	11101	Suspended Particulate (Tsp)	MONTANA RESOURCES-BARGE STATION	Silver Bow	Dec-86	Dec-91
093	0050	12103	Arsenic (Tsp)	MONTANA RESOURCES-BARGE STATION	Silver Bow	Dec-86	Dec-91

093	0050	12110	Cadmium (Tsp)	MONTANA RESOURCES-BARGE STATION	Silver Bow	Dec-86	Dec-91
093	0050	12114	Copper (Tsp)	MONTANA RESOURCES-BARGE STATION	Silver Bow	Dec-86	Dec-91
093	0050	12128	Lead (Tsp)	MONTANA RESOURCES-BARGE STATION	Silver Bow	Dec-86	Dec-91
093	0053	42101	Carbon Monoxide	STORM SEWER,BUTTE;HARRISON AVE & I-90	Silver Bow	Nov-97	NULL
093	0053	61101	Wind Speed	STORM SEWER,BUTTE;HARRISON AVE & I-90	Silver Bow	Nov-97	Sep-01
093	0053	61102	Wind Direction	STORM SEWER,BUTTE;HARRISON AVE & I-90	Silver Bow	Nov-97	Sep-01
093	0053	61106	Std Dev Hz Wind Direction	STORM SEWER,BUTTE;HARRISON AVE & I-90	Silver Bow	Nov-97	Sep-01
093	0054	81102	Pm10 Total 0-10um Stp	BELMONT SOUTH;616 E MERCURY,BUTTE	Silver Bow	Nov-96	Dec-97
093	0054	82114	Copper (Pm10) Stp	BELMONT SOUTH;616 E MERCURY,BUTTE	Silver Bow	Nov-96	Mar-02
093	0054	82128	Lead (Pm10) Stp	BELMONT SOUTH;616 E MERCURY,BUTTE	Silver Bow	Nov-96	Mar-02
093	0054	85101	Pm10 - Local Conditions	BELMONT SOUTH;616 E MERCURY,BUTTE	Silver Bow	Jan-98	Mar-02
093	1007	11101	Suspended Particulate (Tsp)	RAMSAY SCHOOL (RAMSAY)	Silver Bow	Jan-71	Dec-72
093	1007	11103	Benzene Soluble Organics(Tsp)	RAMSAY SCHOOL (RAMSAY)	Silver Bow	Jan-71	Dec-72
093	1007	12103	Arsenic (Tsp)	RAMSAY SCHOOL (RAMSAY)	Silver Bow	Jan-71	Dec-72
093	1007	12110	Cadmium (Tsp)	RAMSAY SCHOOL (RAMSAY)	Silver Bow	Jan-71	Dec-72
093	1007	12128	Lead (Tsp)	RAMSAY SCHOOL (RAMSAY)	Silver Bow	Jan-71	Dec-72
093	1007	12167	Zinc (Tsp)	RAMSAY SCHOOL (RAMSAY)	Silver Bow	Jan-71	Dec-72
093	1007	12202	Fluoride(Tsp)	RAMSAY SCHOOL (RAMSAY)	Silver Bow	Jan-71	Dec-71

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
093	1007	12209	Fluoride (Paper Samplers)	RAMSAY SCHOOL (RAMSAY)	Silver Bow	Jan-71	Dec-71
093	1007	12403	Sulfate (Tsp)	RAMSAY SCHOOL (RAMSAY)	Silver Bow	Jan-71	Dec-71
093	1014	11101	Suspended Particulate (Tsp)	COLUMBIA GARDENS	Silver Bow	Jan-74	Dec-75
093	1015	11101	Suspended Particulate (Tsp)	TIERNEY RESIDENCE, RAMSAY	Silver Bow	Jan-75	Dec-81
093	1015	12306	Nitrate (Tsp)	TIERNEY RESIDENCE, RAMSAY	Silver Bow	Jan-79	Dec-80
093	1015	12403	Sulfate (Tsp)	TIERNEY RESIDENCE, RAMSAY	Silver Bow	Jan-79	Dec-79
093	1018	12208	Fluoride (Vegation)	RHONE-POULENC,#1 UELAND,1.5 MI SE RAMSAY	Silver Bow	Nov-82	Sep-96
093	1019	12208	Fluoride (Vegation)	RHONE-POULENC,#2 UELAND,2.5 MI SE RAMSAY	Silver Bow	Nov-82	Sep-96
093	1020	12208	Fluoride (Vegation)	RHONE-POULENC,#3 UELAND,1.25 M SW RAMSAY	Silver Bow	Nov-82	Sep-96
093	1023	12208	Fluoride (Vegation)	RHONE-POULENC,#6 HILDERMAN,.25 M W RAMSY	Silver Bow	Nov-82	Sep-96
093	1024	12208	Fluoride (Vegation)	RHONE-POULENC,#7 TAMIETTI,1 MI NW RAMSAY	Silver Bow	May-85	Sep-96
093	1027	12208	Fluoride (Vegation)	RHONE-POULENC,#13 UELAND,2 MI SW RAMSAY	Silver Bow	Jan-83	Sep-96
093	1029	12208	Fluoride (Vegation)	RHONE-POULENC,#16 CRADDOCK,4.5 M NW RMSY	Silver Bow	Jan-83	Sep-96
093	1030	12208	Fluoride (Vegation)	RHONE-POULENC,#17 ERICKSONS HAY PASTURE	Silver Bow	May-85	Sep-96
095	0001	81102	Pm10 Total 0-10um Stp	STILLWATER MINE UPWIND #1, NYE	Stillwater	Jun-88	Dec-97
095	0001	85101	Pm10 - Local Conditions	STILLWATER MINE UPWIND #1, NYE	Stillwater	Jan-98	Jul-02

095	0001	81102	Pm10 Total 0-10um Stp	STILLWATER MINE UPWIND #1, NYE	Stillwater	Oct-01	Jul-02
095	0002	11101	Suspended Particulate (Tsp)	STILLWATER MINE DOWNWIND SITE #2	Stillwater	Jun-88	Feb-91
095	0002	12112	Chromium (Tsp)	STILLWATER MINE DOWNWIND SITE #2	Stillwater	Jan-90	Dec-90
095	0002	12128	Lead (Tsp)	STILLWATER MINE DOWNWIND SITE #2	Stillwater	Jan-90	Dec-90
095	0002	81102	Pm10 Total 0-10um Stp	STILLWATER MINE DOWNWIND SITE #2	Stillwater	Jun-88	Dec-97
095	0002	82103	Arsenic (Pm10) Stp	STILLWATER MINE DOWNWIND SITE #2	Stillwater	Jan-91	Dec-91
095	0002	82110	Cadmium (Pm10) Stp	STILLWATER MINE DOWNWIND SITE #2	Stillwater	Jan-91	Dec-91
095	0002	82112	Chromium (Pm10) Stp	STILLWATER MINE DOWNWIND SITE #2	Stillwater	Jan-91	Mar-93
095	0002	82128	Lead (Pm10) Stp	STILLWATER MINE DOWNWIND SITE #2	Stillwater	Jan-91	Mar-93
095	0002	82167	Zinc (Pm10) Stp	STILLWATER MINE DOWNWIND SITE #2	Stillwater	Jan-91	Dec-91
095	0002	85101	Pm10 - Local Conditions	STILLWATER MINE DOWNWIND SITE #2	Stillwater	Jan-98	Sep-01
095	0003	61101	Wind Speed	STILLWATER MINE MET STATION, NYE	Stillwater	Jan-88	Apr-92
095	0003	61102	Wind Direction	STILLWATER MINE MET STATION, NYE	Stillwater	Jan-88	Apr-92
095	0003	61106	Std Dev Hz Wind Direction	STILLWATER MINE MET STATION, NYE	Stillwater	Mar-90	Apr-92
095	0003	62101	Outdoor Temperature	STILLWATER MINE MET STATION, NYE	Stillwater	Mar-90	Apr-92
095	0004	61101	Wind Speed	STILLWATER SMELTER MET STATION,COLUMBUS	Stillwater	May-90	Mar-93
095	0004	61102	Wind Direction	STILLWATER SMELTER MET STATION,COLUMBUS	Stillwater	May-90	Mar-93
095	0004	61106	Std Dev Hz Wind Direction	STILLWATER SMELTER MET STATION,COLUMBUS	Stillwater	May-90	Mar-93

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
095	0004	62101	Outdoor Temperature	STILLWATER SMELTER MET STATION,COLUMBUS	Stillwater	May-90	Mar-93
095	0005	85101	Pm10 - Local Conditions	15 MILES S. OF NYE ON STATE 420 (STILLWATER NORTH)	Stillwater	Oct-01	Jul-02
095	0005	81102	Pm10 Total 0-10um Stp	15 MILES S. OF NYE ON STATE 420 (STILLWATER NORTH)	Stillwater	Oct-01	Jul-02
097	0002	81102	Pm10 Total 0-10um Stp	30 MILES SOUTH OF BIG TIMBER	Sweet Grass	Apr-01	NULL
097	0002	85101	Pm10 - Local Conditions	30 MILES SOUTH OF BIG TIMBER	Sweet Grass	Apr-01	NULL
097	0003	61101	Wind Speed	30 MILES SOUTH OF BIG TIMBER	Sweet Grass	Apr-01	NULL
097	0003	61102	Wind Direction	30 MILES SOUTH OF BIG TIMBER	Sweet Grass	Apr-01	NULL
097	0003	61106	Std Dev Hz Wind Direction	30 MILES SOUTH OF BIG TIMBER	Sweet Grass	Apr-01	NULL
097	0004	81102	Pm10 Total 0-10um Stp	30 MILES SOUTH OF BIG TIMBER	Sweet Grass	Apr-01	NULL
097	0004	85101	Pm10 - Local Conditions	30 MILES SOUTH OF BIG TIMBER	Sweet Grass	Apr-01	NULL
097	0004	85101	Pm10 - Local Conditions	30 MILES SOUTH OF BIG TIMBER	Sweet Grass	Apr-01	NULL
097	0004	85101	Pm10 - Local Conditions	30 MILES SOUTH OF BIG TIMBER	Sweet Grass	Apr-01	NULL
097	0004	81102	Pm10 Total 0-10um Stp	30 MILES SOUTH OF BIG TIMBER	Sweet Grass	Apr-01	NULL
097	0005	61101	Wind Speed	STILLWATER PGM, EAST BOULDER MINE	Sweet Grass	Nov-88	Jul-92
097	0005	61102	Wind Direction	STILLWATER PGM, EAST BOULDER MINE	Sweet Grass	Nov-88	Jul-92
097	0005	62101	Outdoor Temperature	STILLWATER PGM, EAST BOULDER MINE	Sweet Grass	Jun-90	Jul-92

097	0005	81102	Pm10 Total 0-10um Stp	STILLWATER PGM, EAST BOULDER MINE	Sweet Grass	Nov-88	May-91
097	0005	61106	Std Dev Hz Wind Direction	STILLWATER PGM, EAST BOULDER MINE	Sweet Grass	Jun-90	Jul-92
097	0005	82103	Arsenic (Pm10) Stp	STILLWATER PGM, EAST BOULDER MINE	Sweet Grass	Nov-88	May-91
097	0005	82110	Cadmium (Pm10) Stp	STILLWATER PGM, EAST BOULDER MINE	Sweet Grass	Nov-88	May-91
097	0005	82112	Chromium (Pm10) Stp	STILLWATER PGM, EAST BOULDER MINE	Sweet Grass	Nov-88	May-91
097	0005	82114	Copper (Pm10) Stp	STILLWATER PGM, EAST BOULDER MINE	Sweet Grass	Nov-88	May-91
097	0005	82128	Lead (Pm10) Stp	STILLWATER PGM, EAST BOULDER MINE	Sweet Grass	Nov-88	May-91
099	0004	11101	Suspended Particulate (Tsp)	CIRCLE8 RANCH BOX 729 CHOTEAU MT 59422	Teton	Jan-85	Dec-85
099	0004	42410	Sulfation Rate	CIRCLE8 RANCH BOX 729 CHOTEAU MT 59422	Teton	Apr-85	Dec-85
101	0008	42410	Sulfation Rate	ANABELLE SHEETS BOX 428 OILMONT MT 59466	Toole	Jan-85	Dec-87
105	0001	42410	Sulfation Rate	BOX 506 POPLAR MT 59255	Valley	Jan-83	Dec-84
111	0001	42410	Sulfation Rate	214 PUEBLO ST. BILLINGS MT	Yellowstone	Jan-84	Dec-86
111	0003	42410	Sulfation Rate	113 BITTERROOT DR, BILLINGS, MT	Yellowstone	Jan-82	Dec-90
111	0004	42410	Sulfation Rate	114 JOHNSON LANE	Yellowstone	Jan-82	Dec-90
111	0005	11101	Suspended Particulate (Tsp)	FAIRGROUNDS COMPLEX	Yellowstone	Jan-71	Dec-74
111	0005	11103	Benzene Soluble Organics(Tsp)	FAIRGROUNDS COMPLEX	Yellowstone	Jan-71	Dec-71
111	0005	12110	Cadmium (Tsp)	FAIRGROUNDS COMPLEX	Yellowstone	Jan-71	Dec-71
111	0005	12128	Lead (Tsp)	FAIRGROUNDS COMPLEX	Yellowstone	Jan-71	Dec-71

Montana Historical Monitoring Summary (continued)

Site ID	Parameter	Description	County	Date Sampling Began	Date Sampling Ended
111 0005	12167 Zinc (Tsp)	FAIRGROUNDS COMPLEX	Yellowstone	Jan-71	Dec-71
111 0006	11101 Suspended Particulate (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-71	Dec-83
111 0006	12101 Aluminum (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-78	Dec-78
111 0006	12103 Arsenic (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-78	Dec-80
111 0006	12110 Cadmium (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Apr-78	Dec-80
111 0006	12112 Chromium (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-79	Dec-80
111 0006	12114 Copper (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Mar-78	Dec-80
111 0006	12126 Iron (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-78	Dec-78
111 0006	12128 Lead (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-78	Dec-80
111 0006	12132 Manganese (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-79	Dec-80
111 0006	12136 Nickel (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-79	Dec-80
111 0006	12164 Vanadium (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-79	Dec-80
111 0006	12167 Zinc (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-78	Dec-78
111 0006	12306 Nitrate (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-79	Dec-80
111 0006	12306 Nitrate (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-76	Dec-77
111 0006	12306 Nitrate (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-76	Dec-76

111	0006	12403	Sulfate (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-79	Dec-80
111	0006	12403	Sulfate (Tsp)	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-76	Dec-77
111	0006	42401	Sulfur Dioxide	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-75	Dec-81
111	0006	42401	Sulfur Dioxide	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-75	Dec-81
111	0006	42410	Sulfation Rate	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-78	Dec-90
111	0006	42602	Nitrogen Dioxide	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-79	Dec-81
111	0006	61101	Wind Speed	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-79	Dec-80
111	0006	61102	Wind Direction	LOCKWOOD SCHOOL, HARDIN RD,3/4 MI E BLGS	Yellowstone	Jan-79	Dec-80
111	0007	11101	Suspended Particulate (Tsp)	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	Yellowstone	Jan-71	Dec-82
111	0007	11103	Benzene Soluble Organics(Tsp)	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	Yellowstone	Jan-71	Dec-71
111	0007	12103	Arsenic (Tsp)	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	Yellowstone	Jan-71	Dec-71
111	0007	12110	Cadmium (Tsp)	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	Yellowstone	Jan-71	Dec-71
111	0007	12128	Lead (Tsp)	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	Yellowstone	Jan-71	Dec-71
111	0007	12167	Zinc (Tsp)	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	Yellowstone	Jan-71	Dec-71
111	0007	42410	Sulfation Rate	KGHL STATION,3-3/4 MI W BLGS ON HIWAY 10	Yellowstone	Jan-78	Dec-90
111	0008	11101	Suspended Particulate (Tsp)	CITY HALL, 73RD AVE N & 27TH ST	Yellowstone	Jul-71	Dec-91
111	0008	11101	Suspended Particulate (Tsp)	CITY HALL, 73RD AVE N & 27TH ST	Yellowstone	Jan-81	Dec-90
111	0008	11103	Benzene Soluble Organics(Tsp)	CITY HALL, 73RD AVE N & 27TH ST	Yellowstone	Jul-71	Dec-71

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
111	0008	12101	Aluminum (Tsp)	CITY HALL, 73RD AVE N & 27TH ST	Yellowstone	Jan-78	Dec-78
111	0008	12103	Arsenic (Tsp)	CITY HALL, 73RD AVE N & 27TH ST	Yellowstone	Jan-78	Dec-78
111	0008	12110	Cadmium (Tsp)	CITY HALL, 73RD AVE N & 27TH ST	Yellowstone	Jul-71	Dec-78
111	0008	12114	Copper (Tsp)	CITY HALL, 73RD AVE N & 27TH ST	Yellowstone	Jan-78	Dec-78
111	0008	12126	Iron (Tsp)	CITY HALL, 73RD AVE N & 27TH ST	Yellowstone	Jan-78	Dec-78
111	0008	12128	Lead (Tsp)	CITY HALL, 73RD AVE N & 27TH ST	Yellowstone	Jul-71	Dec-78
111	0008	12167	Zinc (Tsp)	CITY HALL, 73RD AVE N & 27TH ST	Yellowstone	Jul-71	Dec-78
111	0008	42410	Sulfation Rate	CITY HALL, 73RD AVE N & 27TH ST	Yellowstone	Jan-78	Dec-90
111	0009	11101	Suspended Particulate (Tsp)	GRAND AVE SCHOOL, 1320 GRAND AVE	Yellowstone	Jul-71	Dec-85
111	0009	12101	Aluminum (Tsp)	GRAND AVE SCHOOL, 1320 GRAND AVE	Yellowstone	Jan-78	Dec-78
111	0009	12103	Arsenic (Tsp)	GRAND AVE SCHOOL, 1320 GRAND AVE	Yellowstone	Jan-78	Dec-78
111	0009	12114	Copper (Tsp)	GRAND AVE SCHOOL, 1320 GRAND AVE	Yellowstone	Jan-78	Dec-78
111	0009	12126	Iron (Tsp)	GRAND AVE SCHOOL, 1320 GRAND AVE	Yellowstone	Jan-78	Dec-78
111	0009	12128	Lead (Tsp)	GRAND AVE SCHOOL, 1320 GRAND AVE	Yellowstone	Jan-78	Dec-78
111	0009	12167	Zinc (Tsp)	GRAND AVE SCHOOL, 1320 GRAND AVE	Yellowstone	Jan-78	Dec-78
111	0009	42410	Sulfation Rate	GRAND AVE SCHOOL, 1320 GRAND AVE	Yellowstone	Jan-79	Dec-85

111	0010	42410	Sulfation Rate	GARDEN AVE BILLINGS, MT	Yellowstone	Jan-82	Dec-86
111	0011	42410	Sulfation Rate	33 AND 2ND AVE N. BILLINGS, MT	Yellowstone	Jan-82	Dec-86
111	0012	81102	Pm10 Total 0-10um Stp	CORNER NORTH 18 ST AND 6TH AVE. NORTH	Yellowstone	Nov-04	NULL
111	0012	85101	Pm10 - Local Conditions	CORNER NORTH 18 ST AND 6TH AVE. NORTH	Yellowstone	Nov-04	NULL
111	0013	42410	Sulfation Rate	WEST COOP,LAUREL	Yellowstone	Jan-81	Dec-90
111	0014	42410	Sulfation Rate	MTN VIEW BLVD BILLINGS, MT	Yellowstone	Jan-82	Dec-86
111	0015	42401	Sulfur Dioxide	LAUREL BN, EAST RAILROAD ST	Yellowstone	Jan-81	Dec-82
111	0015	61101	Wind Speed	LAUREL BN, EAST RAILROAD ST	Yellowstone	Jan-81	Dec-82
111	0015	61102	Wind Direction	LAUREL BN, EAST RAILROAD ST	Yellowstone	Jan-81	Dec-82
111	0015	62101	Outdoor Temperature	LAUREL BN, EAST RAILROAD ST	Yellowstone	Jan-81	Dec-82
111	0016	42401	Sulfur Dioxide	BLAQTC - LAUREL, 1/2 MI E OF CENEX	Yellowstone	Nov-87	NULL
111	0016	42406	So2 Max 5-Min Avg	BLAQTC - LAUREL, 1/2 MI E OF CENEX	Yellowstone	Sep-90	NULL
111	0016	61101	Wind Speed	BLAQTC - LAUREL, 1/2 MI E OF CENEX	Yellowstone	Nov-87	NULL
111	0016	61102	Wind Direction	BLAQTC - LAUREL, 1/2 MI E OF CENEX	Yellowstone	Nov-87	NULL
111	0016	61106	Std Dev Hz Wind Direction	BLAQTC - LAUREL, 1/2 MI E OF CENEX	Yellowstone	Nov-87	NULL
111	0016	61120	Atmospheric Stability	BLAQTC - LAUREL, 1/2 MI E OF CENEX	Yellowstone	Nov-87	NULL
111	0016	62101	Outdoor Temperature	BLAQTC - LAUREL, 1/2 MI E OF CENEX	Yellowstone	Nov-87	NULL
111	0017	42410	Sulfation Rate	1200 MINNESOTA AVE	Yellowstone	Jan-82	Dec-90

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
111	0018	42410	Sulfation Rate	5TH AND SOUTH 28TH BILLINGS MT	Yellowstone	Jan-82	Dec-90
111	0019	42410	Sulfation Rate	SOUTH 27TH & 11TH AVE S., BILLINGS	Yellowstone	Jan-82	Dec-90
111	0021	42410	Sulfation Rate	EAST OF CONOCO REFINERY,FONTAGE ROAD	Yellowstone	Jan-82	Dec-86
111	0022	42410	Sulfation Rate	TWO MOON PARK FRONTAGE ROAD	Yellowstone	Jan-82	Dec-86
111	0025	42410	Sulfation Rate	STATE ST & 3RD SOUTH, BILLINGS	Yellowstone	Jan-84	Dec-86
111	0027	42410	Sulfation Rate	NEWMAN SCHOOL BILLINGS MT	Yellowstone	Jan-82	Dec-86
111	0028	42410	Sulfation Rate	BENCH SCHOOL MILTON ROAD	Yellowstone	Jan-82	Dec-86
111	0032	42410	Sulfation Rate	KLENCK LANE BILLINGS MT	Yellowstone	Jan-82	Dec-86
111	0034	42410	Sulfation Rate	PICCOLO & W FRONTAGE RD, BILLINGS	Yellowstone	Jan-82	Dec-90
111	0035	42401	Sulfur Dioxide	HI-BALL TRUCKING, BILLINGS	Yellowstone	Jan-74	Dec-75
111	0037	42410	Sulfation Rate	JOHNSON AND LOCKWOOD BILLINGS, MT	Yellowstone	Jan-82	Dec-86
111	0038	42410	Sulfation Rate	JOHNSON RD NORTH BILLINGS, MT	Yellowstone	Jan-82	Dec-90
111	0043	42410	Sulfation Rate	WOODLAND DRIVE, BILLINGS	Yellowstone	Jan-82	Dec-83
111	0044	42410	Sulfation Rate	COBURN ROAD BILLINGS, MT	Yellowstone	Jan-82	Dec-83
111	0047	11101	Suspended Particulate (Tsp)	LAB-SEWAGE TREATMENT PLANT	Yellowstone	Jan-71	Dec-72
111	0049	11101	Suspended Particulate (Tsp)	LAB-WATER TREATMENT PLANT	Yellowstone	Jan-72	Dec-72

111	0052	42101	Carbon Monoxide	DIVISION AND GRAND	Yellowstone	Jan-75	Dec-75
111	0052	42401	Sulfur Dioxide	DIVISION AND GRAND	Yellowstone	Jan-75	Dec-75
111	0052	42602	Nitrogen Dioxide	DIVISION AND GRAND	Yellowstone	Jan-75	Dec-75
111	0052	42602	Nitrogen Dioxide	DIVISION AND GRAND	Yellowstone	Jan-74	Dec-75
111	0052	43102	Total Nmoc	DIVISION AND GRAND	Yellowstone	Jan-75	Dec-75
111	0052	44201	Ozone	DIVISION AND GRAND	Yellowstone	Jan-74	Dec-75
111	0053	42101	Carbon Monoxide	27TH AND MONTANA	Yellowstone	Jan-75	Dec-78
111	0053	42401	Sulfur Dioxide	27TH AND MONTANA	Yellowstone	Jan-75	Dec-78
111	0053	42602	Nitrogen Dioxide	27TH AND MONTANA	Yellowstone	Jan-75	Dec-78
111	0053	43101	Total Hydrocarbons	27TH AND MONTANA	Yellowstone	Jan-76	Dec-78
111	0053	43102	Total Nmoc	27TH AND MONTANA	Yellowstone	Jan-75	Dec-78
111	0053	44201	Ozone	27TH AND MONTANA	Yellowstone	Jan-75	Dec-78
111	0054	42101	Carbon Monoxide	11TH & SO 27TH, N OF GREAT WESTERN	Yellowstone	Jan-75	Dec-76
111	0054	43101	Total Hydrocarbons	11TH & SO 27TH, N OF GREAT WESTERN	Yellowstone	Jan-76	Dec-76
111	0054	43102	Total Nmoc	11TH & SO 27TH, N OF GREAT WESTERN	Yellowstone	Jan-76	Dec-76
111	0059	11101	Suspended Particulate (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-81
111	0059	11101	Suspended Particulate (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-78
111	0059	12101	Aluminum (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-79

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
111	0059	12101	Aluminum (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-78
111	0059	12103	Arsenic (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-80
111	0059	12110	Cadmium (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-80
111	0059	12110	Cadmium (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-78
111	0059	12132	Manganese (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-80
111	0059	64101	Barometric Pressure	CENTRAL PARK, BILLINGS	Yellowstone	Jan-79	Dec-80
111	0059	61102	Wind Direction	CENTRAL PARK, BILLINGS	Yellowstone	Jan-79	Dec-80
111	0059	61101	Wind Speed	CENTRAL PARK, BILLINGS	Yellowstone	Jan-79	Dec-80
111	0059	44201	Ozone	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-81
111	0059	43101	Total Hydrocarbons	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-79
111	0059	42603	Oxides Of Nitrogen	CENTRAL PARK, BILLINGS	Yellowstone	Jan-79	Dec-80
111	0059	42602	Nitrogen Dioxide	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-80
111	0059	42601	Nitric Oxide	CENTRAL PARK, BILLINGS	Yellowstone	Jan-79	Dec-80
111	0059	42401	Sulfur Dioxide	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-81
111	0059	12403	Sulfate (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-78
111	0059	12403	Sulfate (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-80

111	0059	12306	Nitrate (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-80
111	0059	12167	Zinc (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-78
111	0059	12167	Zinc (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-79
111	0059	12164	Vanadium (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-80
111	0059	12136	Nickel (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-78
111	0059	12136	Nickel (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-80
111	0059	12132	Manganese (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-78
111	0059	12128	Lead (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-78
111	0059	12112	Chromium (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-80
111	0059	12114	Copper (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-80
111	0059	12114	Copper (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-78
111	0059	12126	Iron (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-79
111	0059	12126	Iron (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-78
111	0059	12128	Lead (Tsp)	CENTRAL PARK, BILLINGS	Yellowstone	Jan-78	Dec-80
111	0060	11101	Suspended Particulate (Tsp)	CENTRAL PARK	Yellowstone	Jan-78	Dec-78
111	0061	42101	Carbon Monoxide	METRA PARKING LOT,6TH AVE & EXPO DRIVE	Yellowstone	Jan-80	Mar-86
111	0061	42401	Sulfur Dioxide	METRA PARKING LOT,6TH AVE & EXPO DRIVE	Yellowstone	Jan-81	Dec-82
111	0061	42410	Sulfation Rate	METRA PARKING LOT,6TH AVE & EXPO DRIVE	Yellowstone	Jan-84	Dec-90

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
111	0061	61101	Wind Speed	METRA PARKING LOT,6TH AVE & EXPO DRIVE	Yellowstone	Jan-80	Dec-86
111	0061	61102	Wind Direction	METRA PARKING LOT,6TH AVE & EXPO DRIVE	Yellowstone	Jan-80	Dec-86
111	0062	11101	Suspended Particulate (Tsp)	TAFT SCHOOL, 623 S 25TH STREET	Yellowstone	Jul-80	Dec-88
111	0062	11101	Suspended Particulate (Tsp)	TAFT SCHOOL, 623 S 25TH STREET	Yellowstone	Jan-82	Dec-85
111	0062	42401	Sulfur Dioxide	TAFT SCHOOL, 623 S 25TH STREET	Yellowstone	Jul-80	Dec-83
111	0062	61101	Wind Speed	TAFT SCHOOL, 623 S 25TH STREET	Yellowstone	Jan-80	Dec-83
111	0062	61102	Wind Direction	TAFT SCHOOL, 623 S 25TH STREET	Yellowstone	Jan-80	Dec-83
111	0062	62101	Outdoor Temperature	TAFT SCHOOL, 623 S 25TH STREET	Yellowstone	Jan-81	Dec-83
111	0062	64101	Barometric Pressure	TAFT SCHOOL, 623 S 25TH STREET	Yellowstone	Jan-80	Dec-80
111	0063	42401	Sulfur Dioxide	SHAWNEE PARK	Yellowstone	Jan-82	Dec-82
111	0063	61101	Wind Speed	SHAWNEE PARK	Yellowstone	Jan-82	Dec-82
111	0063	61102	Wind Direction	SHAWNEE PARK	Yellowstone	Jan-82	Dec-82
111	0064	42401	Sulfur Dioxide	N JOHNSON LANE OLD HARDIN ROAD	Yellowstone	Jan-82	Dec-86
111	0064	61101	Wind Speed	N JOHNSON LANE OLD HARDIN ROAD	Yellowstone	Jan-83	Dec-86
111	0064	61102	Wind Direction	N JOHNSON LANE OLD HARDIN ROAD	Yellowstone	Jan-83	Dec-86
111	0065	11101	Suspended Particulate (Tsp)	LOCKWOOD COUNTY PARK	Yellowstone	Jan-83	Dec-87

111	0065	42401	Sulfur Dioxide	LOCKWOOD COUNTY PARK	Yellowstone	Sep-81	Dec-87
111	0065	42410	Sulfation Rate	LOCKWOOD COUNTY PARK	Yellowstone	Jan-84	Dec-90
111	0065	61101	Wind Speed	LOCKWOOD COUNTY PARK	Yellowstone	Jan-81	Dec-87
111	0065	61102	Wind Direction	LOCKWOOD COUNTY PARK	Yellowstone	Sep-81	Dec-87
111	0065	62101	Outdoor Temperature	LOCKWOOD COUNTY PARK	Yellowstone	Jan-81	Dec-87
111	0065	81102	Pm10 Total 0-10um Stp	LOCKWOOD COUNTY PARK	Yellowstone	Dec-90	Mar-91
111	0066	42401	Sulfur Dioxide	COBURN ROAD	Yellowstone	Jan-81	NULL
111	0066	42406	So2 Max 5-Min Avg	COBURN ROAD	Yellowstone	Nov-88	NULL
111	0066	42410	Sulfation Rate	COBURN ROAD	Yellowstone	Jan-84	Dec-90
111	0066	61101	Wind Speed	COBURN ROAD	Yellowstone	Jan-81	NULL
111	0066	61102	Wind Direction	COBURN ROAD	Yellowstone	Jan-81	NULL
111	0066	61106	Std Dev Hz Wind Direction	COBURN ROAD	Yellowstone	Jan-81	NULL
111	0066	62101	Outdoor Temperature	COBURN ROAD	Yellowstone	Oct-84	NULL
111	0066	42401	Sulfur Dioxide	COBURN ROAD	Yellowstone	Jan-02	Jan-03
111	0067	11101	Suspended Particulate (Tsp)	SANDSTONE SCHOOL, 1440 NUTTER BLVD	Yellowstone	Jan-83	Dec-86
111	0067	42410	Sulfation Rate	SANDSTONE SCHOOL, 1440 NUTTER BLVD	Yellowstone	Jan-84	Dec-86
111	0072	11101	Suspended Particulate (Tsp)	GRAND AVENUE,1320 GRAND AVE,BILLINGS	Yellowstone	Jan-86	Dec-87
111	0072	42410	Sulfation Rate	GRAND AVENUE,1320 GRAND AVE,BILLINGS	Yellowstone	Jan-86	Dec-87

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
111	0072	81102	Pm10 Total 0-10um Stp	GRAND AVENUE,1320 GRAND AVE,BILLINGS	Yellowstone	Jun-86	Dec-87
111	0073	11101	Suspended Particulate (Tsp)	SCOTTISH RITES, CORNER 14TH AND TERRY	Yellowstone	Nov-87	Sep-89
111	0073	42401	Sulfur Dioxide	SCOTTISH RITES, CORNER 14TH AND TERRY	Yellowstone	Nov-87	Sep-89
111	0073	42406	So2 Max 5-Min Avg	SCOTTISH RITES, CORNER 14TH AND TERRY	Yellowstone	Jan-89	Sep-89
111	0073	42410	Sulfation Rate	SCOTTISH RITES, CORNER 14TH AND TERRY	Yellowstone	Nov-87	Sep-89
111	0073	44201	Ozone	SCOTTISH RITES, CORNER 14TH AND TERRY	Yellowstone	Nov-87	Sep-89
111	0073	61101	Wind Speed	SCOTTISH RITES, CORNER 14TH AND TERRY	Yellowstone	Nov-87	Sep-89
111	0073	61102	Wind Direction	SCOTTISH RITES, CORNER 14TH AND TERRY	Yellowstone	Nov-87	Sep-89
111	0073	61106	Std Dev Hz Wind Direction	SCOTTISH RITES, CORNER 14TH AND TERRY	Yellowstone	Nov-87	Sep-89
111	0073	62101	Outdoor Temperature	SCOTTISH RITES, CORNER 14TH AND TERRY	Yellowstone	Nov-87	Sep-89
111	0073	81102	Pm10 Total 0-10um Stp	SCOTTISH RITES, CORNER 14TH AND TERRY	Yellowstone	Jan-89	Sep-89
111	0074	42101	Carbon Monoxide	METRA-6TH & EXPOSITION SE	Yellowstone	Jan-88	Mar-88
111	0074	61101	Wind Speed	METRA-6TH & EXPOSITION SE	Yellowstone	Jan-88	Mar-88
111	0074	61102	Wind Direction	METRA-6TH & EXPOSITION SE	Yellowstone	Jan-88	Mar-88
111	0074	61106	Std Dev Hz Wind Direction	METRA-6TH & EXPOSITION SE	Yellowstone	Jan-88	Apr-88
111	0075	42101	Carbon Monoxide	METRA,EXPO DR & 4TH AVE N, BILLINGS	Yellowstone	Oct-88	Nov-92

111	0075	61101	Wind Speed	METRA,EXPO DR & 4TH AVE N, BILLINGS	Yellowstone	Oct-88	Nov-92
111	0075	61102	Wind Direction	METRA,EXPO DR & 4TH AVE N, BILLINGS	Yellowstone	Oct-88	Nov-92
111	0075	61106	Std Dev Hz Wind Direction	METRA,EXPO DR & 4TH AVE N, BILLINGS	Yellowstone	Oct-88	Nov-92
111	0076	42401	Sulfur Dioxide	PONDEROSA SCHOOL, 4188 KING AVE EAST	Yellowstone	Oct-89	Jun-92
111	0076	42406	So2 Max 5-Min Avg	PONDEROSA SCHOOL, 4188 KING AVE EAST	Yellowstone	Oct-89	Jun-92
111	0076	61101	Wind Speed	PONDEROSA SCHOOL, 4188 KING AVE EAST	Yellowstone	Oct-89	Jun-92
111	0076	61102	Wind Direction	PONDEROSA SCHOOL, 4188 KING AVE EAST	Yellowstone	Oct-89	Jun-92
111	0076	61106	Std Dev Hz Wind Direction	PONDEROSA SCHOOL, 4188 KING AVE EAST	Yellowstone	Oct-89	Jun-92
111	0076	62101	Outdoor Temperature	PONDEROSA SCHOOL, 4188 KING AVE EAST	Yellowstone	Oct-89	Jun-92
111	0077	81102	Pm10 Total 0-10um Stp	FEDERAL CREDIT UNION,2522-4TH AVE NORTH	Yellowstone	Nov-89	Aug-92
111	0077	81102	Pm10 Total 0-10um Stp	FEDERAL CREDIT UNION,2522-4TH AVE NORTH	Yellowstone	Nov-89	Dec-90
111	0078	42101	Carbon Monoxide	DIAMOND PARKING LOT, 315 N 27TH ST,BLGS	Yellowstone	Nov-92	Apr-94
111	0078	81102	Pm10 Total 0-10um Stp	DIAMOND PARKING LOT, 315 N 27TH ST,BLGS	Yellowstone	Nov-92	Apr-94
111	0079	42101	Carbon Monoxide	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	Yellowstone	Nov-92	Jul-97
111	0079	42401	Sulfur Dioxide	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	Yellowstone	Dec-95	Jul-97
111	0079	42406	So2 Max 5-Min Avg	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	Yellowstone	Dec-95	Jul-97
111	0079	61101	Wind Speed	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	Yellowstone	Nov-92	Jul-97
111	0079	61102	Wind Direction	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	Yellowstone	Nov-92	Jul-97

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
111	0079	61106	Std Dev Hz Wind Direction	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	Yellowstone	Nov-92	Jul-97
111	0079	81102	Pm10 Total 0-10um Stp	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	Yellowstone	Jul-94	Jul-97
111	0079	42401	Sulfur Dioxide	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	Yellowstone	Jan-02	Jan-03
111	0079	42101	Carbon Monoxide	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	Yellowstone	Nov-01	Jul-04
111	0079	42406	So2 Max 5-Min Avg	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	Yellowstone	Nov-01	Jan-04
111	0079	42401	Sulfur Dioxide	MT OLIVE LUTHERAN CHURCH, 7-24TH ST W	Yellowstone	Nov-01	Sep-04
111	0080	42401	Sulfur Dioxide	SACRIFICE CLIFF,1600 METERS W COBURN RD	Yellowstone	May-93	Jun-01
111	0080	42406	So2 Max 5-Min Avg	SACRIFICE CLIFF,1600 METERS W COBURN RD	Yellowstone	May-93	Jun-01
111	0080	61101	Wind Speed	SACRIFICE CLIFF,1600 METERS W COBURN RD	Yellowstone	May-93	Jun-01
111	0080	61102	Wind Direction	SACRIFICE CLIFF,1600 METERS W COBURN RD	Yellowstone	May-93	Jun-01
111	0080	61106	Std Dev Hz Wind Direction	SACRIFICE CLIFF,1600 METERS W COBURN RD	Yellowstone	May-93	Jun-01
111	0081	42101	Carbon Monoxide	NORWEST, 130 NORTH 27TH STREET	Yellowstone	Apr-94	Aug-99
111	0081	81102	Pm10 Total 0-10um Stp	NORWEST, 130 NORTH 27TH STREET	Yellowstone	Jul-94	Dec-97
111	0082	42101	Carbon Monoxide	BLGS BRIDAL SHOP 8 GRAND AVE	Yellowstone	Dec-97	Jun-04
111	0082	42401	Sulfur Dioxide	BLGS BRIDAL SHOP 8 GRAND AVE	Yellowstone	Jan-02	Dec-02
111	0082	61101	Wind Speed	BLGS BRIDAL SHOP 8 GRAND AVE	Yellowstone	Dec-97	Jan-99

111	0082	61102	Wind Direction	BLGS BRIDAL SHOP 8 GRAND AVE	Yellowstone	Dec-97	Jan-99
111	0082	61106	Std Dev Hz Wind Direction	BLGS BRIDAL SHOP 8 GRAND AVE	Yellowstone	Dec-97	Jan-99
111	0082	42406	So2 Max 5-Min Avg	BLGS BRIDAL SHOP 8 GRAND AVE	Yellowstone	Jul-01	Dec-03
111	0082	42401	Sulfur Dioxide	BLGS BRIDAL SHOP 8 GRAND AVE	Yellowstone	Jul-01	Jun-04
111	0083	42401	Sulfur Dioxide	LOWER COBURN ROAD - 300 COBURN ROAD	Yellowstone	Aug-99	Jul-03
111	0083	42406	So2 Max 5-Min Avg	LOWER COBURN ROAD - 300 COBURN ROAD	Yellowstone	Aug-99	Jul-03
111	0083	42401	Sulfur Dioxide	LOWER COBURN ROAD - 300 COBURN ROAD	Yellowstone	Jan-02	Dec-02
111	0084	42401	Sulfur Dioxide	BEARTOOTH ELEMENTARY SCHOOL	Yellowstone	Aug-03	NULL
111	0084	42406	So2 Max 5-Min Avg	BEARTOOTH ELEMENTARY SCHOOL	Yellowstone	Aug-03	NULL
111	0085	42101	Carbon Monoxide	CORNER 2ND AVE N. AND N 32ND ST.	Yellowstone	Sep-04	NULL
111	0086	44201	Ozone	SHEPHERD BUS BARN	Yellowstone	Jun-05	NULL
111	0086	42602	Nitrogen Dioxide	SHEPHERD BUS BARN	Yellowstone	Jun-05	NULL
111	0086	42603	Oxides Of Nitrogen	SHEPHERD BUS BARN	Yellowstone	Jun-05	NULL
111	0086	42601	Nitric Oxide	SHEPHERD BUS BARN	Yellowstone	Jun-05	NULL
111	1001	11101	Suspended Particulate (Tsp)	LAUREL JR HIGH, 410 COLORADO AVE	Yellowstone	Jan-71	Dec-91
111	1001	42401	Sulfur Dioxide	LAUREL JR HIGH, 410 COLORADO AVE	Yellowstone	Jan-73	Dec-73
111	1001	42410	Sulfation Rate	LAUREL JR HIGH, 410 COLORADO AVE	Yellowstone	Jan-78	Dec-90
111	1003	42410	Sulfation Rate	ROUNDHOUSE ROAD, LAUREL	Yellowstone	Jan-82	Dec-90

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
111	1004	42410	Sulfation Rate	CITY SEWAGE TREATMENT PLAN, LAUREL	Yellowstone	Jan-82	Dec-86
111	1005	42401	Sulfur Dioxide	LAUREL WATER PLANT	Yellowstone	Jan-76	Dec-76
111	1005	42401	Sulfur Dioxide	LAUREL WATER PLANT	Yellowstone	Jan-74	Dec-76
111	1005	42410	Sulfation Rate	LAUREL WATER PLANT	Yellowstone	Jan-78	Dec-90
111	1006	42410	Sulfation Rate	W. LAUREL CHURCH, LAUREL	Yellowstone	Jan-82	Dec-90
111	1007	42410	Sulfation Rate	A&W ROOTBEER STAND, LAUREL	Yellowstone	Jan-84	Dec-86
111	1008	42401	Sulfur Dioxide	EAST OF LAUREL	Yellowstone	Jan-73	Dec-76
111	1008	42410	Sulfation Rate	EAST OF LAUREL	Yellowstone	Jan-78	Dec-86
111	1009	42401	Sulfur Dioxide	FARM EAST OF CENEX, LAUREL	Yellowstone	Jan-76	Dec-77
111	1009	42401	Sulfur Dioxide	FARM EAST OF CENEX, LAUREL	Yellowstone	Jan-76	Jun-80
111	1009	42401	Sulfur Dioxide	FARM EAST OF CENEX, LAUREL	Yellowstone	Jan-76	Dec-80
111	1009	42401	Sulfur Dioxide	FARM EAST OF CENEX, LAUREL	Yellowstone	Jan-77	Dec-77
111	1009	42410	Sulfation Rate	FARM EAST OF CENEX, LAUREL	Yellowstone	Jan-78	Dec-90
111	1009	43101	Total Hydrocarbons	FARM EAST OF CENEX, LAUREL	Yellowstone	Jan-76	Dec-76
111	1009	61101	Wind Speed	FARM EAST OF CENEX, LAUREL	Yellowstone	Jan-76	Dec-80
111	1009	61102	Wind Direction	FARM EAST OF CENEX, LAUREL	Yellowstone	Jan-76	Dec-80

111	1010	42410	Sulfation Rate	ROOT BEER STAND, LAUREL	Yellowstone	Jan-84	Dec-86
111	1014	11101	Suspended Particulate (Tsp)	LAUREL NEW FARM	Yellowstone	Jan-81	Dec-83
111	1014	42401	Sulfur Dioxide	LAUREL NEW FARM	Yellowstone	Nov-80	Dec-82
111	1014	61101	Wind Speed	LAUREL NEW FARM	Yellowstone	Nov-80	Dec-82
111	1014	61102	Wind Direction	LAUREL NEW FARM	Yellowstone	Nov-80	Dec-82
111	1065	42401	Sulfur Dioxide	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Nov-87	NULL
111	1065	42406	So2 Max 5-Min Avg	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Sep-90	NULL
111	1065	61101	Wind Speed	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Nov-87	NULL
111	1065	61102	Wind Direction	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Nov-87	NULL
111	1065	61106	Std Dev Hz Wind Direction	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Nov-87	NULL
111	1065	61120	Atmospheric Stability	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Nov-87	NULL
111	1065	62101	Outdoor Temperature	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Nov-87	NULL
111	1065	68101	Sample Flow Rate- Cv	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-99	NULL
111	1065	68102	Sample Volume	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-99	NULL
111	1065	68103	Ambient Min Temperature	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-99	NULL
111	1065	68104	Ambient Max Temperature	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-99	NULL
111	1065	68105	Ambient Avg Temperature	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-99	NULL
111	1065	68106	Sample Min Baro Pressure	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-99	NULL

Montana Historical Monitoring Summary (continued)

Site ID			Parameter	Description	County	Date Sampling Began	Date Sampling Ended
111	1065	68107	Sample Max Baro Pressure	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-99	NULL
111	1065	68108	Sample Avg Baro Pressure	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-99	NULL
111	1065	68109	Elapsed Sample Time	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-99	NULL
111	1065	81102	Pm10 Total 0-10um Stp	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-96	NULL
111	1065	82306	Nitrate (Pm10) Stp	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Sep-96	Jun-97
111	1065	82403	Sulfate (Pm10) Stp	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Sep-96	Jun-97
111	1065	85101	Pm10 - Local Conditions	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-98	NULL
111	1065	88101	Pm2.5 - Local Conditions	BLAQTC - LOCKWOOD PARK, OLD HARDIN ROAD	Yellowstone	Jan-99	NULL
111	2003	44201	Ozone	WORDEN OZONE, ROAD 21 NE OF WORDEN	Yellowstone	Jan-78	Dec-78
111	2004	42401	Sulfur Dioxide	BLAQTC - COULSON ROAD (3701 COULSON RD)	Yellowstone	Nov-87	Dec-89
111	2004	61101	Wind Speed	BLAQTC - COULSON ROAD (3701 COULSON RD)	Yellowstone	Nov-87	Dec-89
111	2004	61102	Wind Direction	BLAQTC - COULSON ROAD (3701 COULSON RD)	Yellowstone	Nov-87	Dec-89
111	2004	61106	Std Dev Hz Wind Direction	BLAQTC - COULSON ROAD (3701 COULSON RD)	Yellowstone	Nov-87	Dec-89
111	2004	61120	Atmospheric Stability	BLAQTC - COULSON ROAD (3701 COULSON RD)	Yellowstone	Nov-87	Dec-89
111	2004	62101	Outdoor Temperature	BLAQTC - COULSON ROAD (3701 COULSON RD)	Yellowstone	Nov-87	Dec-89
111	2005	42401	Sulfur Dioxide	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	Yellowstone	Oct-89	NULL

111	2005	42406	So2 Max 5-Min Avg	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	Yellowstone	Sep-90	NULL
111	2005	61101	Wind Speed	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	Yellowstone	Oct-89	NULL
111	2005	61102	Wind Direction	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	Yellowstone	Oct-89	NULL
111	2005	61106	Std Dev Hz Wind Direction	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	Yellowstone	Oct-89	NULL
111	2005	61120	Atmospheric Stability	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	Yellowstone	Oct-89	NULL
111	2005	62101	Outdoor Temperature	BLAQTC-BRICKYARD LANE,1430 LOCKWOOD ROAD	Yellowstone	Oct-89	NULL
111	2006	42401	Sulfur Dioxide	JOHNSON LANE, 627 JOHNSON LANE, BILLINGS	Yellowstone	Nov-93	NULL
111	2006	61101	Wind Speed	JOHNSON LANE, 627 JOHNSON LANE, BILLINGS	Yellowstone	Nov-93	NULL
111	2006	61102	Wind Direction	JOHNSON LANE, 627 JOHNSON LANE, BILLINGS	Yellowstone	Nov-93	NULL
111	2006	61106	Std Dev Hz Wind Direction	JOHNSON LANE, 627 JOHNSON LANE, BILLINGS	Yellowstone	Nov-93	NULL
111	2006	62101	Outdoor Temperature	JOHNSON LANE, 627 JOHNSON LANE, BILLINGS	Yellowstone	Nov-93	NULL
111	2007	42401	Sulfur Dioxide	PINE HILLS, 4250 PINE HILLS DRIVE	Yellowstone	Nov-93	NULL
111	2007	61101	Wind Speed	PINE HILLS, 4250 PINE HILLS DRIVE	Yellowstone	Nov-93	NULL
111	2007	61106	Std Dev Hz Wind Direction	PINE HILLS, 4250 PINE HILLS DRIVE	Yellowstone	Nov-93	NULL
111	2007	61102	Wind Direction	PINE HILLS, 4250 PINE HILLS DRIVE	Yellowstone	Nov-93	NULL
111	2007	62101	Outdoor Temperature	PINE HILLS, 4250 PINE HILLS DRIVE	Yellowstone	Nov-93	NULL
111	2008	42101	Carbon Monoxide	SENIOR HIGH 301 GRAND BLGS	Yellowstone	Dec-95	Jul-97
111	2008	42401	Sulfur Dioxide	SENIOR HIGH 301 GRAND BLGS	Yellowstone	Dec-95	Jul-97

Montana Historical Monitoring Summary (continued)

Site ID		Parameter		Description	County	Date Sampling Began	Date Sampling Ended
111	2008	42406	So2 Max 5-Min Avg	SENIOR HIGH 301 GRAND BLGS	Yellowstone	Dec-95	Jul-97
111	2008	61101	Wind Speed	SENIOR HIGH 301 GRAND BLGS	Yellowstone	Dec-95	Jul-97
111	2008	61102	Wind Direction	SENIOR HIGH 301 GRAND BLGS	Yellowstone	Dec-95	Jul-97
111	2008	61106	Std Dev Hz Wind Direction	SENIOR HIGH 301 GRAND BLGS	Yellowstone	Dec-95	Jul-97
111	2008	62101	Outdoor Temperature	SENIOR HIGH 301 GRAND BLGS	Yellowstone	Dec-95	Jul-97